BRITISH MEDICAL JOURNAL:

BEING THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

EDITED BY ANDREW WYNTER, M.D.

No. XIII.] LONDON: SATURDAY, MARCH 28, 1857. [NEW SERIES.

Diseases of SPECIAL OCCUPATIONS.

No. I.

THE SHEFFIELD GRINDERS.

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[*Continued from page* 236.]

MY attention has been directed to the ages at which the grinders have died at the different wheels for some years past, so far as I could collect them. At the wheel of Messrs. J. Rodgers and Sons, which is a peculiar wheel in many respects, being very well constructed, the fan is in general use where the dry stone is employed. The men also are, as a rule, at work on the higher class of goods, and are not obliged to labour so hard as the men who work at the inferior branches of the trade. At this wheel, since the year 1836, the average age at which the grinders have died has been 42. This return, however, only includes razor grinders and spring knife grinders. The oldest was 57, the youngest 25. Two died at the age of 28. The Union and Soho wheels are both first class wheels, and the mortality at them may be considered below rather than above the usual mortality.

The average ages of the grinders at death, at some of the principal wheels, are given in the next table; and the great majority of the grinders (probably eight out of ten) work at about ten large wheels; the rest at small wheels.

TABLE IV.—*Average age at death of grinders at the following wheels.*

Name of wheel.	Return of deaths since the year	Average age at death.
Messrs. J. Rodgers and Sons	1836	42
Union Wheel	1850	40
Soho Wheel	1845	40
Old Park wheel.....	1844	41
Suffolk Works	1845	38½

In the deaths at the Union wheel, there is a return of the death of a grinder aged 70, who had not worked at his trade for some years. Excluding this man, the average age at death would of course be much less. In the deaths at the Soho wheel, I find returned a fork grinder aged 48. This man had not worked regularly at his trade; he had been the chapel keeper at one of the dissenting places of worship in Sheffield many years, and had not been much at the wheel. There is also the return of a fender grinder (wet) aged 64; he came from the country, and had not worked very hard at his trade. Excluding this man from the list of deaths at this wheel, the average age at death since 1845 has only been 38. At the Suffolk Works wheel, which is a well constructed one, and the property of Messrs. Turner and Co., the ages at death since 1845 have only averaged 38 years and 6 months: the ages at death were 25, 46, 47, 49, 27, 61, 35, 41, 27, 23, 48, 50, 41, 22, and 35 years. The man who died at the age of 61 was a table blade grinder (wet); he had worked at a water wheel in the country many years of his life, and had only been a very short time at the Suffolk Works wheel.

In taking into consideration the ages at which these men have died, it must be borne in mind that some of them have probably perished from other diseases, as well as from the one to which grinders are so liable. Still, on looking at these returns, at the low average age of the men at the time of death, in all these large wheels, the low average age of the men now working in some branches, fork grinders only 29, razor grinders only 31, scissor grinders only 32, as well as the large proportion of boys at work in many of the trades, the high rate of mortality appertaining to the calling of a grinder is certainly perfectly appalling! We observe, also, that the mortality varies with the nature of the trade; and that it is much more destructive of life in the dry branches than in the wet.

Men who work in the country are, as a rule, more healthy than those who grind at the wheels in the town. One of the most healthy branches is that of saw grinding. A number of saws are, it is true, ground in Sheffield, but many of the men work at the water wheels on the picturesque streams around our large manufacturing town; want of water often obliges them to discontinue their work; and as a general rule they have not to labour so many hours a day, as in many other branches. The trade is too heavy to admit of boys coming into it at a very early age, and as the man stands to his work, the lungs are not compressed as when, sitting on his horsing, with his elbows resting on his knees, and his face bent forwards, the grinder is employed on forks, razors, scissors, and pen-blades.

There is another feature, also, of some importance to be considered. Some branches, for example, pen and pocket-blade grinders, now employ the wet stone, who once worked at dry grinding; and, therefore, though at present not exposed to its injurious effects, they formerly were so, and many of them are suffering, more or less. When these men have passed away, and our observations are applied only to men who have worked all their lives on the wet stone, I anticipate that, in this branch, the average age of those employed will be much increased, and the mortality much diminished.

Without anticipating the remarks which belong to the third division of our subject, where I intend to enter into the pathology of the grinders' disease, and to give some drawings of the exact appearances presented by the lungs of several of those who have perished from it, I may say that, in dry grinding, very often before the age of twenty evidence is afforded of the existence of grinders' disease. The breathing is difficult, particularly when ascending a hill, or the steps leading to the hulls in which they work, and the shoulders even at this early age are often elevated in order to relieve the distress occasioned by shortness of breath.

The cause of this disease is, first, the irritation produced by the metallic and gritty particles inhaled in grinding, in "hanging", and in "racing" the grinding stone; and, next, the constrained position in which the men labour. To this must be added the working for many hours in a badly ventilated room, and the very unpleasant smell produced by the friction of the steel on the grinding stone. When at work, the grinder sits astride of what he calls his "horsing"; this is a low, narrow wooden bench; his elbows rest upon his knees, and his head, particularly when employed on very small articles, is bent over the stone. The position is a very injurious one, and when long continued, is calculated most unquestionably to induce pulmonary congestion.

Again: in many of the heavy branches, such, for example, as table-knife grinding, the men work in the coldest weather without either coat or waistcoat, with their handkerchiefs off, their shirts open, and their chests fully exposed; and this too, in a room every bit of the glass from the windows of which has been removed, that the light may not be obstructed by the splashing of the water rendered dirty by the grinding stone. The work is very laborious, the men perspire freely, and in this condition they will often leave the hull without putting their clothes on, and recklessly lounge about in the yard even in weather as bitterly cold as we have had it this winter. Inflammation of the lungs, pleurisy, rheumatic fever, and diseases of the heart, are consequently not unfrequent amongst them.

The workmen in other of the Sheffield trades suffer from inhaling dust as well as the grinders. Bone-scale cutters, ivory

cutters, and the girls employed in the hair-seating manufactures, especially when working with foreign hair, suffer more or less from the dust. A most singular affection is produced on the men who haft knives with cocoa wood and ebony; the dust from both of which woods causes in some instances constriction of the chest, running from the eyes and nose, and symptoms which resemble those present in hay asthma. It also produces, when the skin is at all tender, a peculiar kind of erythema on the hands, face, and other parts of the body.

Prevention of the Grinders' Disease. Can nothing be done to prevent, or at any rate to render less fatal, the occupation of a grinder? This is a question of national importance, and one well deserving our most serious attention. Formerly this disease was unknown, and for this reason; until the year 1786, when the first steam wheel was erected, grinding was not carried on as a distinct branch of trade. The grinding wheels were all built upon the banks of the rivers in the district around Sheffield, and water being the power employed to turn them, it will at once be obvious that the grinder would have many interruptions to his trade, and that to labour day by day as many hours as the grinders do at present, was altogether impossible. Nor was this all; by the old regulations of the Cutlers' Company, passed in the reign of Elizabeth, it was provided that "No person engaged in the said manufactures, either as a master, servant, or apprentice, shall perform any work appertaining to the said science or mystery of cutlers for eight and twenty days next ensuing the eighth day of August in each year; nor from Christmas to the twenty-third day of January, upon pain and forfeiture for every offence, found and presented by twelve men of the said fellowship, of the sum of twenty shillings. No person occupying any wheel for the grinding of knives to allow of any work being done during the holiday months: penalty as before."

When grinding became a separate branch of the Sheffield manufactures,—when the hours were no longer limited during which the men were employed, and when the fearful effects on the animal economy of the particles of steel and grit became apparent, attempts were made to remedy the evil.

The first plan suggested was that of a wooden flue, extending from the grinding-stone to the chimney, for the purpose of carrying off the dust; this, however, was only partially useful. The next was the invention of Mr. Abraham; it consisted of a magnet used as a mouthpiece, or, as the grinders term it, a "magnetic moustache"; it has fallen into general disuse. The next, and the best, was the fan on the principle of a winnowing machine; and with a flue properly constructed, leading from each of the different wheels in each hull, the dust may be most effectually driven out of it, and the pernicious effects, both of the particles of grit and metal which arise in grinding, and of the dust created in glazing and polishing, in a great measure prevented. In two hulls, one at the Union wheel, and one at the Soho wheel, and also in the hulls at the wheel of the firm of J. Rodgers and Sons, I saw the fan at work with the happiest effects. In the hull of G. Trickett, at the Union Wheel, the different operations were gone through in my presence without making any dust; and at the Soho wheel I saw that shaping razors and racing a stone, by adding a properly contrived box, could be rendered perfectly innocuous by the use of the fan; all the dust being driven off by the fan up the shaft on the outside of the building. The particles of dust and steel not carried away by the fan in racing a stone may be prevented from entering the air-passages by a very simple contrivance, consisting of a piece of wadding sufficiently large to cover the mouth and nose, enclosed between two pieces of silk, and secured by a band of elastic to the back of the head.

That the fans, or, as the grinders call them, "*fannies*," answer perfectly, I have convinced myself by actual experiment; and I have also received the unqualified testimony of all the most intelligent dry grinders who use them of the advantage to be derived from them. A razor grinder at the Suffolk Works wheel assured me that but for the fan he should not have now been living; and he said, "If I were to shape twelve razors without a fannie I could hardly breathe next day; with a fannie I can shape them and feel as well as ever I did in my life."

To those who are not as conversant with the economy of a grinding wheel as myself, the question naturally suggests itself, how comes it, that with a contrivance so admirable and so effectual for carrying off the dust from the steel and grinding stone, the mortality is so great? I am sorry to say that these fans are far from being in general use. In some wheels I did not find one; and I went into hull after hull in other wheels where the men were humping scissors, shaping razors, and grinding forks—the most destructive kinds of grinding, as we have seen—without finding one at work. In other hulls one man perhaps was at work with a fan, and the next was destroying himself and his fellow-workmen by grinding without it; in another the man at the end *trow* had put up a fan that would serve the whole hull, which he charged, perhaps, each man a penny a week for; the man next him paid for the fan, but not having been at the trouble to fix a box, it was useless to him. Others had the fan fixed, but not at work; "the noise was too great for them." And (I blush to write it, but such was the case) some dry grinders told me, that "the trade was bad enough as it was; and if the men lived longer it would be so *over full* there would be no such thing as getting a living." To such men I would say,—if ever there was a trade more poisonous than the fabled valley of the Upas—more slow in its effects, it is true, but equally deadly with the inhaling of the atmosphere of the famous Grotto del Cane—it is that of a fork-grinder who works without employing the effectual means for his preservation which the fan affords. And, over the door of the hull of every fork-grinder who day after day ventures to grind without the fan, ought to be written,

"All hope abandon, ye who labour here";

for the work in which you are engaged, without this protector, will most certainly destroy you. The cost of a good fan is from 30*s.* to £3.

Allusion has already been made to the age at which boys are taken to work at the wheel. To send a boy at eight or ten years of age to work at polishing forks, in a grinding hull, is an act of refined cruelty which the powerful arm of the law can alone restrain. The application of the Factory Act to the Sheffield grinding trades would, in my opinion, be most wise and salutary. These helpless children I would indeed commend to the protection of the state; and glad indeed shall I be if these remarks attract the eye of any member of the House of Commons and induce him to bring the question before parliament; or if the evils, moral and physical, under which these poor boys are suffering, lead the inhabitants of Sheffield to petition the legislature to throw around them that protection which they have not at present. The early age at which these boys are made to work, and the many hours during which, day by day, they labour, render it impossible to give that general instruction, and religious training, which we have a right to see extended to all classes in a Christian land. The immense competition that exists in many branches, the manufacture of articles to supply the "Cheap Johns" and others who frequent our markets and fairs—articles which are made for *sale* and not for *use*—has doubtless caused many more boys to be employed than would otherwise have been the case; the men remarking, with some degree of justice, that inferior goods are charged so low that they are obliged to make boys work with them or they could not get a living.

That the present high rate of mortality amongst the grinders in Sheffield may be diminished, I am certain, by—

1. Reducing the hours of labour.
2. Preventing boys from being apprenticed to the trade so young as at present.
3. Obliging all dry grinders to use a fan, and to keep it in active operation.
4. Preventing dry and wet grinders from working together in the same hull.

1. *Reducing the hours of labour.* It is a notion in Sheffield that a drunken grinder often lives the longest. This a very great mistake; for intemperance has hurried hundreds of these men to the grave. I have almost invariably remarked that so soon as the liver becomes affected, the chest symptoms are much increased; and that when the liver fails to discharge its functions a very slight amount of disease in the lungs of a grinder will cause far more distress and difficulty of breathing than much more extensive disease when this organ acts properly. The truth is, that the drunken grinder is much away from the wheel: he does not work so many hours at his trade as a steady man, and thus escapes the evils which arise from the dust, and the injury to his lungs which a long continuance of labour, day after day, in a constrained position must occasion. By limiting the hours of labour, time would be afforded for indulging in out-of-doors pursuits—in exercises which would bring the different muscles of the body into play, and have a tendency to prevent some of the effects resulting from bending over the wheel when at work. It must not be forgotten, that until grinding became a separate branch of trade, and steam-power enabled the labour to be constant, the dis-

ease which forms the subject of our present inquiries was hardly known.

II. *The prevention of children entering the wheel at an early age* would afford an opportunity for the body to develope itself on the one hand, and that needful education to be given on the other, which would remove the fearful ignorance at present existing, direct the mind to pursuits which are ennobling, and give to the Sheffield grinders, as a body, a position in the social scale to which they have never yet attained. With the removal of the present state of ignorance, the importance of those general hygienic principles so conducive to health and to longevity would be more generally adopted, and the wheel well ventilated, kept clean, and frequently white washed, and no longer regarded as a place "only to work in," and of no importance whether clean or dirty. At home efficient reforms could not fail to be effected; during the day every room in the house would have air freely admitted, and the sleeping apartment, no longer overcrowded, would be ventilated either by taking out a brick over the fireplace near the ceiling and placing a bit of silk over the hole to keep out the soot, or by substituting ribs of glass for one of the upper panes in the window. Personal cleanliness would not as now be neglected; for the occasional use of the bath, sponging with cold water daily, friction with a coarse cloth or a flesh brush afterwards, should never be omitted by these artisans. And, when the minds of these industrious workmen shall awaken to the importance of employing the three great sanitary agents, Light, Air, and Water,—agents which are all important for the preservation of health and the prevention of disease; when the folly of intemperance is admitted, improvident marriages avoided, and boys are allowed to remain at school instead of being forced at eight and ten years of age into the hull of the grinding wheel, then, and not till then, may we hope to see the high rate of mortality which at present exists diminished, and with a reasonable hope of lengthened days, the Sheffield grinders discharging faithfully the duties of that station of life unto which it has pleased their Creator to call them.

The pathology of The Sheffield Grinders' Disease will form the subject of my next paper.

Surrey House, Sheffield, March 19th, 1857.

Illustrations of HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

ST. MARY'S HOSPITAL.

JAUNDICE: DISEASE OF THE LIVER, ATTENDED WITH EXTREME DILATATION OF THE BILE-DUCTS.

Under the care of F. Sibson, M.D.

[*From Notes by* E. A. Hart, Esq., *House-Surgeon.*]

Bartholomew C., aged 59, was admitted Feb. 9, under the care of Dr. Sibson, on account of an attack of jaundice, of two months duration. He had been under treatment as an out-patient, under Dr. Sieveking's care, without benefit. There was considerable pain in the region of the liver, and in the chest; the skin and conjunctivæ were deeply stained. The liver could be felt enlarged, and its edge strongly marked. The urine was acid, and contained a large quantity of bile. He was ordered to have mercurial liniment applied to the abdomen; and to take a draught, containing iodide of potassium with solution of bichloride of mercury and tincture of hyoscyamus.

On further examination, it was found that the right lung reached down to the sixth costal cartilage; and the edge of the liver could be seen through the walls of the abdomen, descending about half an inch with each inspiration. The superficial veins of the abdomen were full, but not much distended. The treatment during the next few days consisted in blisters to the hepatic region, and a fourth of a grain of elaterium every morning. Under this treatment, the yellow tint became less marked; and the size of the liver appeared to decrease, as its movement in respiration could not be seen through the abdominal parietes, though it could be very plainly felt. The appetite, however, remained very bad; the motions were white and clayey. The elaterium, having produced copious purging, was omitted; and the yellow tint of the skin soon began again to deepen. On Feb. 26th, he was ordered potassio-tartrate of iron, with cod-liver oil. Nitro-muriatic baths were also employed, but without benefit. About this time, the glands of the groin were observed to be enlarged. The tint of the skin was deepening into a bronzed colour; he was extremely weak, and was getting occasionally drowsy. On the 7th of March, it is noted that he was comatose; the urine very scanty, and slightly albuminous; the pulse scarcely perceptible. There had been bleeding from the gums occasionally, to a trifling extent. He continued in this condition till his death, on March 15th.

On *post mortem* examination, the tissues were found extensively stained of a bright yellow colour; and the body was much emaciated, the fat in the omentum, as well as in other parts, being consumed. The thoracic viscera were pretty healthy; the kidneys soft and friable, but not diseased as to structure. The suprarenal capsules were healthy. The liver weighed 4 lbs. 14½ oz.; it was of a leadenish black colour. There were two or three small nodules on its surface, which, when cut, gave exit to a viscid, transparent, albuminous fluid. On a further section, a considerable quantity (half a pint) of this escaped, exactly resembling the white of an egg; and large cystic looking cavities, or dilatations, were seen through the entire substance of the organ. In the left lobe, the bile-ducts were dilated from their smaller ramifications quite up to the hepatic duct. In the right lobe, this was not so universal amongst the smaller branches, but the larger ducts were universally expanded, so that a finger could readily be passed into them: they had compressed the parenchyma of the organ, so as to render it hard and dense. The branches of the hepatic artery and portal vein were displaced in consequence, so that they were found with difficulty; and their calibre much interfered with. A section of the organ was intensely green, and full of biliary matter. The right hepatic duct was at one point constricted, and would there only admit a probe.

Remarks. This case was a subject of much interest to those who had an opportunity of examining it during life, as opinions were somewhat divided with respect to the malignancy or non-malignancy of the disease to which the great enlargement of the liver was owing. The opinion of those who were inclined to attribute the enlargement to malignant disease, was favoured by the presence of the nodular swellings on the surface of the organ, noticed in the *post mortem* description, and which were felt through the abdominal parietes during life; and, as this phenomenon is justly regarded as strong evidence of the presence of cancerous deposit, it may be useful to remember this case as an instance proving that such a condition may coexist, however rarely, with simple inflammation.

The state of the liver disclosed by the dissection was a very peculiar one; inasmuch as enormous distension of the ducts, to such an extent as to seriously modify the secreting tissue of the organ, was found coexisting with a state of the excretory channels which did not oppose any efficient obstacle to the flow of bile into the duodenum. It appears most probable that the disease was an extreme form of that catarrhal inflammation of the ducts described by Dr. Budd (*Diseases of the Liver*, p. 177), in which the ducts become loaded by a viscid whitish secretion. In the present instance, this distension of the ducts had gone on to such an extent as to interfere materially with the circulation in the organ, and very probably with the integrity of its ultimate elements. A case is reported in the same work (p. 210), in which, coincident with distension of the ducts, the whole of the cellular tissue of the liver was destroyed.

Another interesting feature noticed in this case was the movement of the liver in respiration, which could be plainly seen through the thinned walls of the abdomen; and the distinct edge which could be felt around the whole of its circumference. This latter point is noted by Dr. Budd (*loc. cit.*), as being often observable where the liver is enlarged from simple retention of bile (to which the above case is analogous, at any rate, in its physical phenomena), in contradistinction to those cases in which the enlargement is due to strumous or fatty deposit. The precise history of the attack from its commencement was not attainable; but, if the patient was correct in dating it from so recent a period, the rapidity with which it reached its fatal termination is not the least remarkable feature in the case.

HOSPITAL FOR SICK CHILDREN.

I. FATTY TUMOUR IN THE INTERIOR OF THE SPINAL CANAL.

Under the care of Athol Johnson, Esq.

The little patient, whose case is reported at page 125 of this Journal, died a few days ago of a disease not connected in any manner with that which is there described, and thus an opportunity was afforded of dissecting the parts involved in the operation. The appearances so disclosed were so interesting and peculiar that we shall endeavour to describe them in detail. It may be premised that six weeks had elapsed since the operation, and that in the interval the wound had soundly healed, leaving a depressed cicatrix. All the symptoms referrible to irritation of the spinal cord (twitching of the limbs, etc.) had disappeared; the child was in perfect health, and had begun to move about. Three days before its death, it was seized with vomiting, slight convulsions, and other symptoms ascribed (but erroneously, as proved by *post mortem* examination) to irritation of the membranes. It was not seen by any of the officers of this hospital before its death, which appeared to have taken place rather suddenly. The cause of death, as revealed by *post mortem* examination, was peritonitis, not apparently depending on any strumous deposit. The brain and its membranes were perfectly healthy. The spinal column was opened in its whole extent. The bony canal and its contents were perfectly natural to within a short distance of the lower end, except that there seemed rather an unusual amount of fat at one part of the dorsal region. This, however, did not produce anything of the nature of a tumour. The coccyx, sacrum, and two last lumbar vertebræ were removed for examination. The latter were natural; the coccyx was very slightly ossified. The spinal cord reached down, enveloped by its membranes, to the end of the canal. There was found a large hole in the posterior wall of the sacral canal, at the level of the sacro-iliac synchondrosis. The cicatrix of the operation adhered to a small quantity of fat which was left here; and immediately below this, the membranes of the chord bulged out slightly through the opening. Situated below the membranes, and pressing upon the spinal cord, was a rounded mass of fat, apparently enclosed in a fine capsule. In consequence of the projection caused by this mass of fat, a large space was left between the cord and its membranes just above it, which had, of course, been filled during life by the subarachnoid fluid; to which circumstance the very distinct heaving pulsation observed at the operation was no doubt owing. The anterior part of the sacrum also showed a deficiency in ossification. The bodies of the two upper sacral vertebræ appeared to be normally developed, but below this the bone was deficient in its right half, while the opposite side was fully ossified. There did not appear to be any tendency to the unnatural deposition of fat in other parts of the body.

Thus it will be seen that the state of parts revealed by dissection was exactly that which had been diagnosed at the time of the operation; with this further peculiarity, that besides the deficiency in the posterior wall of the sacral canal, and the mass of fat which was lying in this situation in contact with the membranes externally (and which in the preparation was easily distinguishable from the ordinary subcutaneous adipose tissue), there was another collection of fat internal to the membranes, by which they were raised and made more prominent. Doubtless, if the child had survived, this tumour would have further increased, and it seemed likely that it would have occasioned pressure on the cord, as well as have protruded through the opening in the sacrum; and thus the spinal irritation, which was relieved by the operation, would have been renewed. It is worthy of remark that the cord in this case extended down, undivided, to a point much below that which is its usual termination at this period of life.

II. BELLADONNA IN INCONTINENCE OF URINE.

Under the care of Athol Johnson, Esq.

Lavinia B., aged 8 years, was admitted as an out-patient, under Mr. Johnson's care, in July last, on account of incontinence of urine. This infirmity had existed since birth, and she had frequently been under treatment for it, both in private and at St. Bartholomew's Hospital, without however deriving any material benefit. At the time of her admission, the urine was acid, and nothing particular was to be observed as to its composition. She used to pass it frequently in the day, and usually wetted her bed two or three times during the night. She was treated at first up to October 29th with purgatives, alkalies, and blisters to the sacrum, but without any improvement being thereby obtained. It may be observed that there were no worms. At the above date, she was ordered one-eighth of a grain of extract of belladonna night and morning. On November 22nd, it is noted that the child had been doing very well since the use of the belladonna, and that she only passed urine in bed about once in a week. After this, she did not attend regularly; and on February 11th, after an absence of more than a month, she again presented herself in much the same state as at first, the urine being again passed frequently. The belladonna was resumed, and the incontinence again materially checked, especially at night. On February 25th, the quantity of the drug was increased to one-sixth of a grain; and on March 18th, when last seen, she had not passed water in bed since the previous date.

Remarks. This case, though it cannot be said to be perfect, in consequence mainly of the inattention of those who had care of the child, illustrates forcibly the good effect which the use of belladonna unquestionably has in many cases on irritability of the bladder. The affection appears to have been congenital, all kinds of other remedies had been adopted without effect; and the improvement following on the administration of belladonna was as marked as the relapse which ensued on the omission of the treatment. It is offered, not as an instance of perfect cure, but as a well marked example of the power of the drug over this particular symptom. No other effect was observed to follow its administration.

ST. BARTHOLOMEW'S HOSPITAL.

I. CONTUSION OF THE LEG: RUPTURE OF THE POPLITEAL ARTERY AND VEIN: PRIMARY AMPUTATION OF THE THIGH.

Under the care of E. Stanley, Esq.

An unusual injury of the great bloodvessels of the leg, unattended with wound or fracture, was observed in this Hospital in the case of a little boy, who was admitted on March 20th under Mr. Stanley's care. As he was at play a shutter fell upon the back of his leg. When admitted, a large swelling was found in the popliteal space, unaccompanied by pulsation. This appeared to be due entirely to ecchymosis of blood. The skin was uninjured, and there was no fracture of the bones. The lower part of the limb was becoming cold, and a mottled state of the surface showed the commencement of gangrene of the part. Under these circumstances Mr. Stanley determined on the removal of the limb. On dissection, the artery and veins were found torn completely across near the flexure of the joint. The ends of the artery were widely separated from each other, and the upper end had been closed, at least partially, by a clot, which, however, had been partly displaced during the manipulation of the part. The lower end was firmly contracted, but no clot was observed in this part of the vessel. The ends of the vein were also separated, but not to so great an extent; they were quite patulous, and the bleeding appeared to have proceeded, principally, at any rate, from this trunk.

II. DISLOCATION OF THE SHOULDER.

Under the care of F. C. Skey, Esq.

A case of injury of the shoulder was operated on, on March 21st, which presented some features of interest, and gave rise to some difference of opinion among those who examined it. The accident had occurred three weeks before. There was more freedom of motion than is usual in dislocation; the head of the bone could be felt in the axilla, but less distinctly than is generally the case in such an injury in persons who (like Mr. Skey's patient) are not particularly fat. Besides these causes of doubt it was thought by some of those who saw the case that the crepitus of bone would be detected in the region of the neck of the scapula. There was one circumstance, however, which led Mr. Skey to the belief that the bone was dislocated, viz., that the length of the affected exceeded that of the sound arm by one inch and a half. This symptom, as Mr. Skey observed in his remarks on the case, is insisted on by Dupuytren and by the late Mr. Vincent as conclusive with regard to the existence of dislocation; and the event appeared to prove the justice of his diagnosis, as after a somewhat protracted extension under chloroform, by means of the pulleys, the natural length of the arm was restored, and the head of the bone, though still perceptible by deep pressure in the axilla, was evidently restored to its natural position in the glenoid cavity, passive motion being possible in any direction.

ST. GEORGE'S HOSPITAL.

CASE OF EXTENSIVE CLEFT PALATE CLOSED BY OPERATION.

Under the care of G. D. Pollock, Esq., Assistant-Surgeon to the Hospital.

The engraving (Fig. 1) is taken from a model of the mouth of a patient who was under the care of Mr. Pollock, in St. George's Hospital, and in whom there existed a cleft through the alveolar ridge, the hard palate, and the soft palate. It will be

Fig. 1.

observed in the engraving that there was complete fissure through the alveolar arch in front, on the left of the median line, which extended into the nostril; and there was a corresponding irregularity of the upper incisors. Fissured lip existed at birth, with this congenital defect of the bone. The lip was operated upon in early life; and from the appearance of the bone in front, it is probable that a small projecting portion of the latter was removed at the time of the operation on the lip. Above the fissure, through the maxillæ, was seen the septum nasi, bent upon itself; it is marked in the engraving by the darkened mass seen between the edges of the anterior portion of the fissure. In this case, then, the cavity of the mouth opened into the cavities of both nostrils. It only required that the cleft in the alveolar ridge should be double (*i. e.*, one on each side of the median line, with an intervening portion of bone supporting the incisor teeth) to render this case as extensive a deformity as is met with in these species of congenital defects of the mouth, and one of the most formidable for operative interference.

Articulation with such a deformity is always very indistinct and imperfect. In this case, it was so much so that, to a stranger, the patient could not make himself understood. This imperfection was increased in him partially from the loss of one of the incisors, and also from the irregular, short, and stunted state of the other incisors; for, in talking, his tongue was constantly thrust forward, with the endeavour to make good this deficiency. The soft tissues covering the bony palate were sufficiently plentiful to justify an attempt to close this portion of the fissure; and the soft palate was so pliant and abundant that there appeared no doubt of securing a good velum, if union followed the usual operation for uniting this portion of the cleft.

The first operation was confined to the anterior half of the hard palate. Without any difficulty or loss of much blood, the soft structures were dissected from the bones, from within outwards; and, when they were sufficiently liberated, and the edges touched in the middle line, three sutures were passed, in order to keep the edges in apposition. Though the posterior portion of the hard palate was not brought together by sutures, there was some portion of it separated from its bony attachments, in order to allow the anterior half to come together without any restriction posteriorly. If an attempt is made to unite the whole extent of a fissure, such as we have in this engraving, the extensive interference with the attachments of the soft tissues necessary to bring the edges readily together so greatly interrupts the supply of blood, and endangers the vitality of the separated portions, that there is considerable risk of union by first intention not taking place, or of the flaps themselves sloughing in several and extensive portions.

This first operation succeeded in closing about an inch and a half of the anterior portion of the fissure. A second operation was performed about three months after the first. The steps of the operation were similar to the former one, and the part operated on was the remaining portion of the hard palate, but not more than an additional half-inch was added to the new palate after union had occurred.

In a short time afterwards, Mr. Pollock decided to operate on the soft palate, and without any difficulty the edges of the fissured velum were brought together; the levator palati muscles being divided through the palate, in the manner described by him in a paper in the *Medico-Chirurgical Transactions*, vol. xxxix, p. 78. This operation succeeded most satisfactorily.

There now remained an opening in the palate, about half an inch in length, having behind it the newly formed entire soft palate; in front, that portion of palate which had resulted from the effects of the first two operations on the anterior portion of the fissure. This opening was closed by the fourth attempt, and the edges united satisfactorily by first intention, there remaining for a few weeks a very minute opening, through which the flat end of a probe could be passed; but this is closing, and does not allow the passage of fluids through it.

The engraving (fig. 2) shows the present and final state of the mouth after the fourth operation. The models from which the woodcuts have been taken were made for Mr. Pollock by Mr. Vasey, and are accurate representations of the former and of the present condition of the patient.

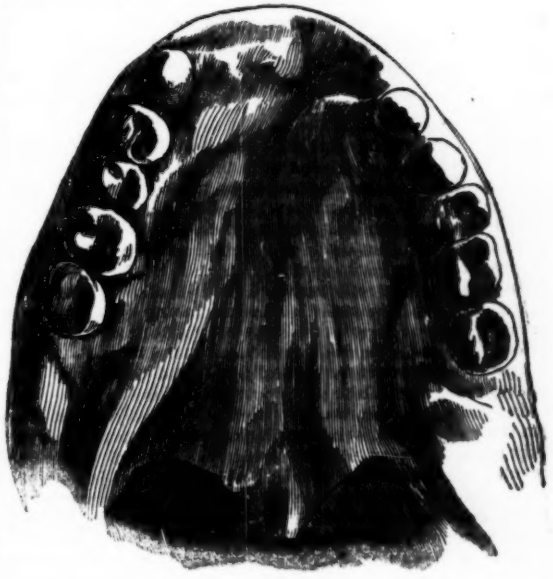

Fig. 2.

The defects of the deficiency of the teeth were attended to before the last operation; the stunted and twisted incisors were removed, and some artificial teeth upon a plate were adapted by Mr. Vasey to the gap which is represented in fig. 2; so that the appearance of the patient is very materially improved by these alterations. But in addition to this the patient has derived considerable advantages from the filling up of the gap in front, in being able to articulate much more distinctly.

Since the last operation, three or four months ago, he has materially improved in speaking, and can now pronounce many words clearly and easily which previously he could not articulate so as to be understood. The acquisition of distinct articulation is only a matter of learning, when once the patient has a palate supplied to him, if born without one. In this case it is most evident if he is watched in his efforts at pronunciation. Not having had a palate for many years, after endeavouring to articulate, he has acquired a habit of using his

tongue in a manner different to persons with natural palates, in his endeavours to overcome the congenital deficiency of structure; and now that the palate is supplied him he cannot at once adapt his tongue to the new position of structures: for instance, in endeavouring to articulate the letter T, he places his tongue in the position to pronounce E. Never having had a roof to his mouth, the tip of the tongue had nothing to rest against above in his efforts to articulate the T; and consequently it was always placed in the position for pronouncing the E, as being the letter nearest in sound to the T. Difficulties of this kind in articulation vary in proportion to the extent of the fissure; but the marked improvement in this case already, certainly encourages the surgeon to hope that, with care and great attention, the worst deformity giving rise to great defect in speech may be ultimately benefited by operation, even if the patient be not ultimately entirely able to overcome the defects in speech which he has acquired in his younger years.

A brother of this patient has a cleft of the soft palate, but is at present too young to be operated upon; and it is by no means uncommon to find more than one member of a family the subject of these congenital deficiencies of the mouth.

Original Communications.

ON ANÆSTHETICS.

By W. Michell Clarke, Esq., Lecturer on Forensic Medicine at the Bristol Medical School; and late House-Surgeon to the Bristol General Hospital.

[*Read before the Bath and Bristol Branch, February 19th*, 1857.]

Having had an excellent opportunity of testing the effects of amylene in two severe operations, I have thought the subject sufficiently interesting to bring before this meeting. It occurred to me that it would be very advantageous at the same time to examine into certain other matters connected with anæsthetics.

I therefore, in the first place, set myself to inquire why it was that chloroform so soon took the place of ether, notwithstanding that the latter agent was so lauded, and held to be so faultless, when it first came up. I soon came to the conclusion that it was owing to the greater power of chloroform. Ether was somewhat uncertain in its effects, and it was often difficult to produce anæsthesia with it; whilst chloroform was easy to administer, and very effectual to the end proposed. No great importance seems to have been attached to the question of comparative danger; neither does it seem that any one, after chloroform had ended fatally in many instances, troubled much to compare the two. It is generally admitted that ether was in no case the cause of death, notwithstanding that it was so indiscriminately, and in many cases so carelessly, administered. On the other hand, it is certain that chloroform has been in fifty cases the cause of death; and that in some of these the result has happened in spite of every precaution, in defiance of every care. Hence it is that we are still seeking a new anæsthetic, and that at the present time we are watching the trial of amylene with so great an anxiety.

The great disadvantage of chloroform is, no doubt, its danger, and the anxiety that must always attend its administration. I must, however, after a long and full experience of it, express my confidence in it, and say that it is a means to which we are fully justified in having recourse. But other disadvantages attending its employment have been alleged against it; and it appears to me that they are being made too much of at the present time. These are principally excitement during the operation, and sickness and exhaustion after it. With regard to these, I have considered it better to record my experience before relating the two cases in which amylene was given. The comparative merits of the two, in these respects, will then better appear. I will also narrate shortly, before reading the cases of amylene, two cases in which, chloroform having been administered, perfect consciousness was retained throughout the operation. I have seen no similar cases published, and have always looked upon them with great interest.

In a certain number of cases, when chloroform is being inhaled, there is excitement, chiefly showing itself by struggling. Out of sixty-eight cases, in which I have taken notes with regard to this point, it occurred twelve times, from which it may be seen that it is by no means an ordinary effect of chloroform. Moreover, in most of the cases in which there is struggling at first, the patient may be pushed on to a state of quietude. There are, however, a few in which the struggling being attended with other symptoms similar to those of epilepsy, it would be unsafe to quiet the patient by giving more chloroform, and in which the surgeon must be prepared to operate whilst the patient is held still by assistants. This production of struggling certainly lessens the value of chloroform in a few cases; but they are not very common.

Sickness, violent, obstinate, and prolonged, even over several days, is undoubtedly one of the most troublesome after-consequences of chloroform. This disadvantage is, I believe, admitted on all hands. All-important, however, as is this consequence, it is certainly not so frequent as is commonly supposed. With reference to this point, I have examined carefully the notes of thirty-four cases, of which I have recorded the details at considerable length. In twenty-nine of these, there was no sickness after the inhalation; and they were cases well calculated to test this matter. They included various kinds of operations; and the time during which the patients were kept under the influence of chloroform varied from a few minutes to upwards of an hour.

The following is a list of them. They all occurred in the practice of the Bristol General Hospital, where the inhalation of chloroform has been thoroughly used, and where also ether, and lastly amylene, met with an early trial.

Amputations	5
Herniotomy	3
Lithotomy	2
Chopart's operation	1
Dilatation and incision of the urethra in order to remove calculi from the female bladder	2
Making openings for the evacuation of pus	3
Extension of a fractured thigh	1
Straightening a rigid knee	1
Removal of necrosed bone	1
Passing a catheter in a case of ruptured urethra	1
Diagnosis of fracture	2
Taxis for hernia	2
Dressing a lacerated leg	1
Removal of a tumour	1
Operation for contracted elbow-joint	1
Reducing a fractured thigh	1
Reducing a dislocated elbow	1
	29

In five cases there was sickness, more or less troublesome after the operation.

In one of these, a young woman, amputation of the leg was performed on October 24th, 1850. She was very sick, and continued so until October 29th.

In the second case, a cyst was removed from near the eye. This patient was a child, six years old. She was sick once on the same evening, and once on the following morning. She had, moreover, been kept carefully from food on the day of the operation.

In the third case, the operation was an amputation of the arm, the patient being a middle-aged woman. She felt sick during the same evening; but the feeling had passed off by the next morning. She did not vomit at any time.

In the fourth case, the leg of a man was amputated for a very severe injury. He vomited once on the second evening after the inhalation; and as, two days after the operation, an erythematous blush had extended from the wound to above the knee, it is quite as probable that the sickness was due to the irritation set up by the operation as to the chloroform.

In the fifth case, an encysted tumour was removed from the right eyelid of a young girl. She was very sick through the following night, and continued very low for several days. She fainted several times. This patient was very hysterical. The sickness was probably caused by her having taken bread and butter for breakfast on the morning of the operation. This she vomited in an undigested state during the operation.

These cases will suffice to shew the proportion in which sickness will probably take place after chloroform—thirty-four in all, five of them had sickness; and in one of these, it did not come on until the second evening after the inhalation, and in another, it was caused by taking solid food on the morning of the operation.

In much that has been written lately, it seems to be assumed that an immunity from sickness is the exception rather than

the rule; and it is on this account that I have entered rather fully into this part of my subject. It has certainly been my experience that freedom from sickness is the rule—sickness, the exception.

In examining whether chloroform be liable to induce great exhaustion or not, we are at once met by a difficulty which it is not very easy to get over. We cannot well tell how much is to be attributed to the inhalation, how much to the operation itself. It will be remembered that many operations which were scarcely ever performed before the introduction of chloroform—operations involving considerable time and great shock to the system—are now performed frequently. It would be the tendency of such operations to cause great and protracted exhaustion; and I question much whether the exhaustion, which has been attributed to chloroform, would not often have been greater if the patient had been obliged to be conscious during all the time of a long and tedious operation. I have not seen any evil result from this cause, which could fairly be said to be the effect of chloroform.

It is interesting at this particular time to know that there are cases, albeit very rare, in which, with chloroform, the insensibility to pain being complete, the patient's consciousness remains throughout the operation. I have met with two such cases, of which the following are short notes.

A girl, aged 23, had a tumour removed from beneath the lower eyelid. She was under the full influence of chloroform for about ten minutes. I have recorded that, although quite insensible to pain, she retained the power of carrying on rational conversation throughout. When not roused to talk, she talked irrationally to herself. She firmly asserted that she never felt anything of the operation.

In a second case, in which the inhalation was continued for a much longer period, the operation being to dissect through a strictured urethra, the same remarkable condition was observed. The man asked me more than once how they were getting on; and yet declared that he felt no pain. This very peculiar condition seems to be common to several anæsthetics; but is rare with chloroform.

Amylene, both in its general properties and also in its physiological effects, appears to be more like ether than chloroform. It differs, however, from both. Than ether it appears to be more effectual, much less liable to produce excitement before begetting insensibility, less disposed to cause subsequent unpleasant effects. On the other hand, it is like ether, in having a very disagreeable odour, in being of low specific gravity and very volatile, in being difficult to administer to a full effect, and in having to be used in very large quantity.

From chloroform, it differs more. But principally in the same respects that ether differs from chloroform. In short, in its effects, it appears to occupy a middle position between the two. To be more effectual than ether. To be less dangerous than chloroform. It is said not to be attended with struggling; not to be followed by sickness; and in the larger number of cases in which it has been given, this has been proved. Dr. Snow has used it in sixty-two cases, and in only two was there any subsequent sickness. That perfect quietude will not be the invariable rule, is proved by a case that I am about to read. On account of the novelty of this subject, and, at the same time, because of its importance, I must trespass upon your patience whilst I give a short account of the two cases in which I have used the amylene. I do this the rather, because they were cases well adapted to test its effects.

Through the kindness of Mr. Godfrey, I had the opportunity of administering amylene in the following case, which occurred at the General Hospital.

The patient was a delicate, very anæmic looking girl, upon whom Chopart's operation was performed. After inhaling six and a half drachms of amylene in eight minutes, she was insensible, and the operation was commenced. She was kept insensible for twenty minutes. The state into which she was thrown was like that of deep sleep; she was unconscious, but the condition was not in any way like coma. All the time, although feeling no pain from the operation, she resisted the finger when an attempt was made to touch the eye. There was a little irregular movement of the arms, which, however, was easily restrained. The lower extremities were perfectly quiet all through the operation. The pupils showed no fixed condition, but always acted under the influence of light. The pulse and respiration were very quick before the inhalation commenced; but both became slower as she gradually came under its influence. The respirations kept at 28; but the pulse fluctuated considerably. Altogether, the quantity that was inhaled was sixteen and a half drachms.

As soon as the operation was over, and the inhaler removed, she very rapidly recovered, and felt no ill effects afterwards. Three or four days subsequently, however, she said that she could still taste the amylene, that it was very nasty, and that it had made her sick on the night before. It could also be smelt in her breath for two or three days. She said directly after the operation, that she had felt nothing of it, and she still asserts the same as strongly. Her opinion of its agreeableness is, however, not quite so favourable.

The second case in which I administered amylene was in the removal of a very large cartilaginous tumour from the gluteal region. In this case, the operation was performed by Mr. Coe; and, through his kindness, it gave me an excellent opportunity of trying the new anæsthetic. The operation was a very serious and difficult one; the tumour had grown up from the ilium, carrying the gluteus maximus muscle upon its surface. It dipped deep into the space between the tuber ischii and the trochanter major of the femur, pressing upon and involving the great sciatic nerve, besides other important structures belonging to this complicated region. The operation commenced at six minutes before 2, and endeed at sixteen minutes before 3 P.M. During this time, seven ounces and five drachms of amylene were inhaled. Three drachms were at first put into Snow's inhaler; but, as this did not answer very well, I substituted for it the ordinary one. She came under the influence of the amylene in four minutes. Throughout the operation, she did not complain of any pain, except by muscular expression, such as is common enough in administering chloroform. She was, however, remarkably conscious all through. As in the first case, she would not at any time allow the finger to be placed in contact with the conjunctiva. I believe that, at any time, I could have roused her to a rational answer; but this I did not attempt more than once or twice, on account of the importance of the operation. Several times, however, she knew me, and asked "how I was getting on". Another time, she told me very quietly that she was slipping off the table. These phenomena certainly strike me as being very wonderful, —that a person should be undergoing the most severe surgical operation, and yet take it as quietly as if unconcerned in the matter. It will be remembered, however, that I adduced two cases to show that the same state sometimes exists with chloroform. The peculiarity of amylene is, that a certain amount of consciousness has been retained in a large number of cases. When the operation was terminated, she said that she had felt some of the cutting at the beginning, but nothing to care about. She gives the same account still, and I believe it to be a correct one. Except the two cases in which chloroform was given, and consciousness retained, I have as yet seen nothing to encourage the hope that we shall be able to retain consciousness after sensation is abolished. They seem to subside under the influence of anæsthetics, *pari passu*; and I am afraid that, as a rule, where any amount of the one remains, some amount of the other will remain also.

In this second case, there was a good deal of struggling at intervals during the operation, which required some power to restrain it. From this we may learn that it will not in every case give the advantage of greater quietude than chloroform.

As in the first case, the pulse fluctuated remarkably during the operation, varying from 60 to 120. When the inhalation was discontinued, she almost immediately recovered. This, however, I look upon as a very doubtful advantage. After the more serious operations, it restores the patient all at once to a sense of suffering; whereas, with chloroform, there are often several hours of valuable comfort, and not uncommonly refreshing sleep. There were no troublesome after consequences, and no sickness. It will have been noticed that a very large quantity of amylene was used, more than a drachm in a minute. It seemed impossible to get too much into the system; and with this I have been greatly impressed: it is this fact that appears to me to promise an immunity from danger. Its low specific gravity and rapid evaporation hinder it from being retained long in the blood. Hence, no doubt, the extreme evanescence of its effects—the probable freedom from risk. This very condition, however, places it in something like the same position as ether with regard to the difficulty of administration. It certainly is much more difficult to keep the patient insensible with amylene than with chloroform. It requires to be given almost unintermittingly, and requires the same amount of attention to keep up its effects as chloroform does to keep the patient safe. The direction of the attention, however, is one less calculated to give anxiety. I believe that the best inhaler for it will be found to be one of large size, with a free expiratory and in-

spiratory valve, and capable, by yielding edges, of fitting the face closely.

At present, the expense is a serious drawback, and the smell is generally considered to be highly objectionable; but neither of these should prevent it from obtaining from the profession a fair and candid trial.

I think it very probable that we shall be placed in the same position with regard to anæsthetics as to many other medicines. We shall have, most probably, hereafter, to select the most appropriate in each particular case. Thus, as in prescribing mercury, we select the form best adapted to the case before us, so in the production of anæsthesia, it will be our wisdom to select the anæsthetic which will best suit the requirements of the case before us. Where the operation only involves the skin, we shall do well to employ Dr. Arnott's method, which is most assuredly deserving of more consideration, and of more extended use, than it has hitherto met with. When, on the other hand, the operation is more severe, and likely to be longer continued, we may choose amylene: and we shall be the more led to do this, if from any reason we suppose that our patient will not bear well the use of chloroform. But when we want to produce the most thorough unconsciousness, when we require to keep up the condition for a long time, and especially when, from any circumstance of the operation, we cannot apply the inhaler with sufficient assiduity for maintaining the effect of amylene, then we shall, I believe, still have recourse to chloroform, which, although it appears to be the most dangerous of the anæsthetics at present in use, yet has the great advantage of being by far the most effective.

CASE DEMONSTRATIVE OF THE POWER OF BELLADONNA IN ARRESTING THE SECRETION OF MILK.

By John Burrows, Esq., Liverpool.

Having had a large midwifery practice, I have witnessed much suffering and annoyance from inflammation and suppuration of the mammæ, which arose in many instances from a copious secretion of milk, that distended the breasts, pressed upon the nerves, and increased the action of the circulatory apparatus, and thus produced inflammation, with some of its painful and debilitating consequences. In numerous cases, I am persuaded, these painful effects would have been prevented if I had known of a remedy which would either have suspended the maternal function, or entirely arrested it. Such a remedy, I believe, we have in belladonna. The following case confirms this view of its therapeutic power.

Case. Mrs. R., aged 26 years, commenced the weaning of her second child on March 10th, 1857. On March 11th, I saw her. She complained of great pain of the left breast, which was inflamed, much distended, and very hard. She directed my attention particularly to a wide, callous, and painful prominence, that resembled a thick convex belt, which stretched from the mamma to the clavicle. I prescribed the diluted extract of belladonna, and directed it to be applied as in the former case. I saw her again on the following day. She said her breast continued distended and painful. I then had a momentary doubt of the efficacy of my remedy. No sooner had the thought crossed my mind than she said, "I washed off your salve, and put on sticking plaster, at the recommendation of a female friend of considerable experience." I spoke to her of the impropriety of calling in a medical man, if she would not follow his advice. She felt the remark, and replied, "I will take off the plaster, and apply your preparation." I urged her to do so without delay. Having lost some valuable time, I deemed it necessary to combine with the application of the extract the administration of the purgative mixture, with the wine of colchicum. Had there been no delay, I intended to test the antilactific power of the remedy alone, without the combined influence of any other. Time having been lost, I was afraid of trusting to it, lest suppuration should ensue.

On March 13th, I visited her. She met me with a smile, and exclaimed, "My breast is better; the pain is gone, and the fulness reduced." She continued the application till the following morning, when the breast was cool, pale, and flaccid, and the elevated hardened integument, that stretched from the breast to the clavicle, diminished in size, softer to the touch, and free from pain. The secretion of milk is arrested, there being no spontaneous dribbling from the nipple; nor can any milk be squeezed out of the breast.

Clinical Lecture

ON THE

EMPLOYMENT OF THE OPHTHALMOSCOPE IN THE INVESTIGATION OF DEEP-SEATED DISEASES OF THE EYE.

By Holmes Coote, Esq., F.R.C.S., Assistant-Surgeon to St. Bartholomew's Hospital; late Surgeon to the British Hospital at Renkioi, Dardanelles.

The difficulties so often experienced by the surgeon in determining the exact seat or nature of the different diseases affecting the structures of the eye posterior to the iris, render any discovery acceptable by which diagnosis may be facilitated; and hence the ophthalmoscope, which illuminates the interior of the globe and brings before the observer morbid changes in the choroid coat, or in the retina, heretofore unknown, is attracting at the present moment particular attention.

The merit of invention of this instrument, accorded by the French to a Greek physician, named Anagnostakis, and claimed by the Germans as their own, is in truth due to an Englishman, Mr. William Cumming, formerly house-surgeon to the London Hospital, who wrote in the twenty-ninth volume of the *Transactions* of the Royal Medical and Chirurgical Society, a paper, the object of which was to shew that the healthy human eye is equally or nearly equally luminous as the eye of the cat, dog, etc., when observed under favourable circumstances; and that the abnormal appearance or want of luminosity may be applied to the detection of changes in the retina and the posterior part of the eye.

The circumstances necessary for seeing the luminosity may be arranged as follows.

1. That the eye must be at some distance from the source of light—the distance being greater in proportion to the intensity.

2. That the rays of light diffused around the patient (and sometimes around the eye itself) should be excluded.

3. That the observer should occupy a position as near as possible to the direct line between the source of light and the eye examined.

Mr. Cumming supports his statements by the narration of several cases of amaurosis, which he witnessed at the Royal Ophthalmic Hospital, Moorfields. Had it been this gentleman's good fortune to have called German his mother-tongue, with what enthusiasm would this discovery have been welcomed in England! As it was, the paper was read, published, and forgotten, until lately, about ten years after it was written, when the impress of value to the observations has been accorded by the foreign schools.

In 1847, Mr. Cumming's experiments were repeated by Brücke at Vienna. The former threw light upon the face of a person ten to twelve feet from the candle, intercepting the side rays, and endeavouring to bring his own eye as near to the flame as possible. The latter also used a candle, but held between it and his face, as high as the summit of the flame, a screen, over which he looked into the illuminated organ.

In 1854, two other Englishmen were engaged in this subject, namely, Mr. Wharton Jones and Mr. Babbage. Indeed, the latter had constructed an instrument, consisting of a bit of plane glass mirror, with the silvering scraped off at two or three spots in the middle, fixed within a tube at such an angle that the rays of light falling on it through an opening in the side of the tube were reflected into the eye to be observed, and to which one end of the tube was directed.

It is unnecessary to repeat how Helmholz, E. Jäger, Coccius, Ruete, Graefe, and Anagnostakis, with others, have worked with laudable perseverance, until the instrument now in use has been constructed. It carries out very well the principles laid down by Mr. Cumming, and needs only a little practice to become manageable in the hands of any one.

Before proceeding to describe some of the cases in which important information is gained by the use of the ophthalmoscope, I may remark that the usual depreciatory cry of obstructive mediocrity has been already raised against this as against every other novel instrument, either in medicine or surgery. We are told that the employment of the light injures the eye; that it shews nothing; that what it does shew, cannot be rectified. I have often remarked to you that a precisely similar cry was uttered of the stethoscope, the early general employment of which is quite within my professional recollections. The same enlightened remarks will be made on the next discovery of a

similar class, but experience proves that they do not affect the ultimate success of that which is true.

I apprehend that one great advantage likely to result from a more accurate knowledge of the pathology of the deep-seated affections of the eye, will be to connect ophthalmic surgery more closely with general medicine; to render it less a speciality; and to establish far more scientific and well-grounded principles of constitutional treatment. Already have the consequences of scrofula, gout, rheumatism, syphilis, Bright's disease of the kidney, on the sight, been recognised; but we want the first step in the further inquiry—namely, the nature of the morbid changes in the affected organ.

Syphilitic iritis is a disease which is generally very easily controlled by proper treatment; namely, the abstraction of blood and the administration of mercury. Occasionally, though rarely, patients do not bear blood-letting. In other cases, mercury is inadmissible from the beginning; or, at some later period, when other medicines have to be substituted. But at the same time, let it be remembered, that iritis may run its course without treatment, and leave the patient very useful vision.

A case which, after the subsidence of the active disease, leaves the patient with vision impaired for a month or six weeks, but slowly progressing to complete recovery, affords useful matter for ophthalmoscopical investigation.

A young man was under my care in St. Bartholomew's Hospital, suffering from acute syphilitic iritis, in the month of September 1856, having neglected himself for a fortnight previously. His disease yielded to the usual treatment, but left him with a mist before his sight, which was unfit for any occupation requiring minuteness. I examined this patient with the ophthalmoscope early in January 1857, with the expectation of finding traces of inflammatory deposit in the choroid membrane. In this, however, I failed; but behind and to the side of the crystalline lens, and in the vitreous humour, there were opaque membraniform deposits, which prevented the ready transmission of light. Experience had taught me that ultimately the eyes would recover themselves; and I expressed myself to the effect in confident terms to the patient. He presented himself at the hospital on March 12th, when his vision was as perfect as ever. The morbid deposits had disappeared.

Dr. Heymann, of Dresden, remarks, that in iritis two forms of morbid deposit are noticed. 1. A sparing exudation from the iris, but with turbidity of the aqueous humour. 2. Frequently recurring hypopion. In the first form, the opacities in the vitreous humour were fine, filamentous, or membranous, and depended upon inflammation of the ciliary bodies, and perhaps of the anterior part of the choroid. In the second, it was seen that the vitreous humour was turbid, the choroid coat redder than usual, and studded with yellow inflammatory deposits. The veins of the retina were very dark and dilated. In this form of disease, the vitreous humour may be occupied by a network of lymph.

The influence of Bright's disease, or granular degeneration of the kidney upon the organs of vision, is becoming daily a subject of greater interest. The drawing which I here present was taken from an amaurotic patient of intemperate habits. The papilla of the optic nerve is swollen; the branches of the central vessels of the retina are less visible than natural; there are small and distinct deposits of lymph about the choroid membrane. Of the history and progress of this case, I unfortunately know nothing.

Landouzy is said to have first published an account of the connexion between Bright's disease and amaurosis. But Blodig found only three cases in illustration of this combination during the five years he studied in the ophthalmic clinic of Vienna.

At Dresden, Dr. Heymann found in an eye of a patient so diseased: 1. All the transparent structures normal; 2. The choroid of its usual vascularity; but the papilla of the optic nerve was twice its normal size.

In a second case, the vitreous humour was found to be turbid.

In a fatal case, the following *post mortem* appearances were observed. Upon division of the globe, the vitreous humour did not flow out, but clung to the anterior and the posterior sections. The anterior part of the choroid shewed deficiency of pigment in the choroid, corresponding to external blue discoloration during life. In the posterior segment, the macula lutea was abnormally marked. About one or two lines from the entrance of the optic nerve, which was natural, there was a ring of yellowish white deposits, about twenty in number. By the aid of a magnifying glass, other and smaller spots were seen in the neighbourhood. The microscope showed that these spots were instances of granular fatty degeneration of the retina, which separated more easily than natural from the choroid.

Seventeen years ago, long before the microscope was in general use or the ophthalmoscope invented, the following case came before my notice.

Thomas P., aged 22, a printer and compositor, a man of intemperate habits, was admitted into St. Bartholomew's Hospital, under Mr. Lawrence, with amaurosis, considerably advanced in both eyes. The sight had been gradually failing for the last four months, but without heat about the temples or pain in the head. There had been no dark spots or muscæ volitantes. The pupils moved sluggishly upon exposure to light, which however caused no pain.

Feb. 23rd, 1840. Five grains of blue pill were ordered to be taken thrice a day. He was cupped from the neck to ten ounces.

Feb. 24th. He stated to-day that he had of late suffered much pain from swelling of the legs, which he attributed to his constant habit of standing. He was suffering from bronchitis of both lungs.

March 1st. He died of the disease of the chest.

Examination of the Eyes after Death. The external appearance of the organs was natural. The optic nerve was unaltered in appearance, perhaps flatter than usual; the transparent structures were healthy, but near to the optic papilla in both eyes there was an extravasation of blood in the retina visible to the unassisted eye.

The bronchi were full of secretion; the lower part of the lungs was consolidated.

The abdominal viscera were not minutely examined.

I believe that this was a case of Bright's disease, and that in consequence, those granular changes occurred in the arteries of the retina, which Virchow has described as common under such circumstances in the capillaries of the brain.

Sufficient has here been said to show the importance of further investigations upon the subject.

Reviews and Notices.

On Rheumatism, Rheumatic Gout, and Sciatica; their Symptoms, Pathology, and Treatment. By Henry W. Fuller, M.D.Cantab., Assistant-Physician to St. George's Hospital, etc. pp. 464. London: Churchill. 1856.

The first edition of Dr. Fuller's excellent work on Rheumatism was carefully reviewed in the Association Medical Journal for February 25, 1853; it will not be necessary, therefore, to do more now than to point out briefly the additions which have been made in the second edition.

The work has been enlarged by about sixty pages; and the additions chiefly consist in remarks on various remedial measures to be used in rheumatic gout, in chronic rheumatism, and sciatica and other forms of neuralgic rheumatism. In the chapter on chronic rheumatism, Dr. Fuller thus brings under notice the merits of sassafras, diluents, sulphur, mezereon, arsenic, various sedatives, aconite, the hot iron, the frigorific mixture of Dr. J. Arnott, and oil of turpentine. Subjoined is a brief abstract of the remarks made on some of these remedies.

Sulphur, in doses of half-a-drachm, three or four times in the day, and aided by the sulphur vapour-bath, is regarded by the author as one of the most reliable remedies for the removal of chronic muscular pains. Its use, however, should be restricted to muscular and neuralgic rheumatism. This drug, Dr. Fuller observes, has doubtless contributed not a little to the reputation of the powder termed the "Chelsea Pensioner".

In his chapter on Sciatica, Dr. Fuller has some noteworthy remarks on the effects of sulphur applied externally.

"Nothing proves more generally efficacious than sulphur applied externally. Whatever its mode of operation, the fact remains that, employed in this manner, it often subdues pain which has persisted in spite of all other remedies. In many parts of England, the sulphur ointment of the *Pharmacopœia* is a favourite remedy amongst the poor for the cure of rheu-

matism, whether affecting the joints or other parts of the body; and brief notices of its virtue when thus employed are to be found sparsely scattered through our periodical literature. But in no recognised treatise, with which I am acquainted, do I find the slightest notice of the curative action of sulphur applied externally; and I am indebted to one of my hospital patients for directing my attention to the subject. He was a man, forty-three years of age, who had been afflicted with sciatica in a severe form above five months. He had undergone a long course of medical treatment before he applied at the hospital, but without obtaining the least mitigation of suffering; and I had already tried several remedies with little success, when a friend induced him to put sulphur in his boots, and otherwise apply the remedy externally. In four days he was much relieved, and in less than a fortnight had recovered perfectly. Since that time, I have used it in seventeen chronic non-inflammatory cases; and in six only did it fail in giving relief. In four cases, the relief was complete and permanent, and occurred within ten days after its application was commenced; in three others, considerable alleviation of pain was obtained, but a complete cure was not effected; and in the remaining four, the relief was only partial and transient. Several of these cases, however, occurred amongst my out-patients at St. George's Hospital, and it is questionable whether the remedy was tried fairly and perseveringly.

"The mode in which I usually employ it, is to sprinkle thickly with precipitated sulphur a piece of new flannel, in which the whole of the affected limb is to be encased, from the foot upwards. This should be kept in its place by a bandage; and when expense is not of importance, the whole limb so bandaged should be covered with oiled silk or gutta percha, which has the effect not only of increasing the warmth, and confining the vapour of the sulphur, but also of obviating the disagreeable odour consequent on the application of the remedy. This bandage should be kept applied day and night. Contrary to what might be expected *à priori*, absorption of the sulphur takes place rapidly, and the breath, the urine, the secretions from the bowels, and the cutaneous exhalation, unmistakeably attest its presence in the system. And this, probably, explains the mystery of its action in mitigating or subduing the pain of sciatica. For not only does the remedy find its way into the circulation as readily, if not more so, than when administered by the mouth, but it is applied to the affected part more directly, more constantly, and in larger quantities, than it can be under any other mode of administration. The only exception to this is when the skin is dry and inactive, in which case the sulphur does not disappear, the excretions give no token of its absorption into the system, and the remedy fails in affording relief, unless means are taken to stimulate cutaneous action.

"Whatever the precise influence it exerts in sciatica, there cannot be a doubt that its beneficial effects are most strikingly displayed in chronic cases unattended by any symptoms of inflammation—in cases in which the limb feels cold, and pain is felt only on exertion. If any symptoms of inflammation are present, and if the pain is excessive even when the limb is at rest, then, according to my observation, sulphur is seldom of any benefit, and in some instances may possibly aggravate the pain. And if its action be to stimulate the capillary circulation, as has been suggested by Sunderlin and others of the German school, it is not difficult to conceive how its influence may prove beneficial in certain instances, and no less prejudicial in others." (pp. 456-8.)

Arsenic is regarded by Dr. Fuller as "a faithful ally in many cases of rheumatic gout": viz., in instances marked by extreme inactivity of the skin, where the patients suffer greatly from cold, and rarely if ever perspire, however warmly they may be clad, however active the exercise they take, and however great the heat to which they may be subjected. Under the use of arsenic, "the languor and depression which characterise the disease pass off: the complexion improves; the skin loses its dryness and harshness; the excretions reassume their healthy character; the patient gains flesh; and the rheumatic or gouty symptoms subside." Dr. Fuller gives, if the urine be turbid, from eight to fifteen minims of liquor potassæ arsenitis with liquor potassæ or acetate of potash; if the urine be clear and of low specific gravity, he orders from ten to twenty drops of liquor arsenici chloridi, either alone or in combination with bark and (if mineral acids be indicated) hydrochloric acid. In cases of chronic rheumatism also, Dr. Fuller has found arsenic of great service. The *modus operandi* of this remedy, as well as that of sulphur, he professes himself unable to satisfactorily explain. However, of the fact he is certain—that arsenic, judiciously administered and carefully watched in its effects, is one of our most valuable remedies in the chronic forms of rheumatism.

The *hot iron* recommended by Sir A. Carlisle, Dr. Corrigan, and Professor Day, meets with qualified approbation in the hands of Dr. Fuller. He believes that it often fails in giving relief, and that it proves useful in exact proportion as the pain is truly neuralgic, and as symptoms of constitutional derangement are absent. In several of the truly neuralgic instances, he has found the hot iron to afford instant relief: he questions, however, whether "Dr. Day's little button" is preferable to a common laundress's iron.

Of the *frigorific plan* advocated by Dr. James Arnott, Dr. Fuller has had but little experience; but he concludes that "although this application may possibly be useful in purely painful affections of the nerve, in cases of congestion or commencing inflammation, and in those cases again which, whatever their cause, are aggravated by warmth and accompanied by a distressing sense of local heat, it must necessarily fail in every instance in which the pain arises from irritation in the alimentary canal or other distant part, or in which inflammation has gone on to effusion..... The instances, however, cited by Dr. Arnott, seem to show that the powerful influence of this agent may be beneficially employed more frequently than might *à priori* be expected." (p. 455.)

Although, as we have pointed out, the chief additions to the book have been made in the therapeutical portions, the whole of the work has evidently undergone a careful revision by the author. The production of a careful observer, and sound practical physician, Dr. Fuller's volume must for some time be the standard work on rheumatism for the use of the British practitioner.

Royal College of Surgeons of Edinburgh. The President and Fellows of the Royal College of Surgeons held a *conversazione* on the evening of Friday, Feb. 20th, which was attended by a large number of gentlemen of various learned professions. Among those present were Lord Deas, the Rev. Dr. Muir, the Rev. Dr. R. Lee, Professors More, Kelland, Blackie, and Balfour; Councillors Forrester, Paul, Greville, Hill, Dick, Gorrie, Crichton, and Kay; M. De Candolle (grandson of the celebrated botanist), Dr. Hunter, Dr. Maclagan, Mr. John Steell, Mr. G. Harvey, Mr. Rhind, Mr. Christie, etc., etc. The lecture of the evening was delivered by Professor Allen Thomson, of Glasgow University, "On the Phenomena and Mechanism of the Adaptation of the Eye to Vision at Different Distances". He said that the power of the eye to change its focal adjustment to suit different distances was one which existed in most persons before middle age, and in the natural condition of the eye. It was greater in the young than in middle age, and after middle age appeared to be considerably lost. The seat of this power of adaptation had been a subject of much inquiry and investigation by those who had studied the phenomena of the eye. The result of his own inquiries, and that of other observers, led him to attribute that power of adaptation to the lens, although instances had, however, occurred in which the lens had been entirely lost, but in which the adapting power in some degree remained. The lecturer entered into a minute examination of the structure of the eye, illustrating the remarkable phenomena and powers of that organ by numerous diagrams. On the motion of Lord Deas, a vote of thanks was awarded to the learned professor. His lordship expressed his gratification with the opportunities these *conversazione* afforded to the members of different learned professions of meeting and mingling with each other. Dr. John Struthers seconded the motion; and the thanks of the meeting were conveyed to the lecturer by the President (Dr. Andrew Wood), who alluded, in complimentary terms, to the hereditary and personal connexion of Professor Thomson with this College. After the lecture, tea and coffee were served in the adjoining hall. (*Edinburgh Monthly Journal*, March.)

British Medical Journal.

SATURDAY, MARCH 28th, 1857.

THE MEDICAL OFFICER OF THE BANBURY POOR-LAW DISTRICT.

In this Journal of March 7th, we gave a brief account of some proceedings which had taken place in regard to Mr. Grimbly, the medical officer of the Banbury district. It will be remembered that the medical men resident in Banbury were stated to have pledged themselves not to compete for the office resigned by that gentleman, nor to hold intercourse with any one who should commit an act so derogatory to professional honour. But, since the date of our report, events have occurred which have injured the *esprit de corps* of our Banbury colleagues, and for the time endangered, as far as they are concerned, the good cause which they appeared to be unanimously supporting. A Dr. Caparn, partner of Mr. Chesterman—whose name, it will have been observed, was first among the signatures to the address to Mr. Grimbly—offered himself as a candidate for the vacant appointment. On being asked for an explanation of his conduct in the matter, Mr. Chesterman replied that he "did not feel himself implicated by the acts" of Dr. Caparn, which were "perfectly independent of his sanction;" and further stated that he was not prepared to disconnect himself from his partner in consequence of the proceedings of the latter. This reply called forth from a meeting, consisting of Messrs. Morris, Douglas, Rye, Smiles, Griffin, MacGreal, Wise, and Grimbly, practitioners in Banbury, the following resolution:—

"That a man who could so deliberately break a distinct pledge, was an unfit associate for the members of a profession in which honour and good faith ought to be paramount."

Mr. Chesterman, in reply to this resolution, denies having given the pledge. He alleges that the resolution containing it, stated to have been passed on February 19th, was not known to him until it was read to him on March 11th; that he "never could or would bind himself to such a mean and despotic resolution;" that there is "a spirit of persecution among *some* of the medical men in the town towards himself that is now incomprehensible." The other medical men, on the contrary, distinctly state, and even assert their willingness to prove by oath, that the resolution repudiated by Mr. Chesterman was passed during his occupancy of the chair at the meeting on February 19th. They also allege that, although Mr. Chesterman had stated Dr. Caparn's acts to be "perfectly independent of his sanction," he (Mr. Chesterman) had previously requested one of the guardians to propose his partner as a candidate for the vacant office. Mr. Chesterman answers by denying that he occupied the chair at the meeting in question, and by reiterating his denial of participation in the resolution.

Such is a brief history of the state of affairs between Mr. Chesterman on the one hand, and six or eight medical practitioners in Banbury on the other. In carefully weighing the evidence on both sides, it strikes us forcibly that Mr. Chesterman, in his last communication, has put prominently forward a comparatively trivial point on which to raise a question of veracity; namely, his occupancy or non-occupancy of the chair at the meeting held on February 19th. This, we think, does not at all affect the main question—Was he, or was he not, a consenting party to the resolution condemnatory of competition for Mr. Grimbly's office? On this point we must say, that the evidence preponderates greatly against the correctness of Mr. Chesterman's statements; for six respectable practitioners in Banbury distinctly affirm in writing the contrary.

We could comment severely on the conduct of Mr. Chesterman; but we are warned to be careful by an expression used by him in a letter to the Banbury Guardians, in which he "repudiates and disclaims being in any way a party to the scurrilous, offensive, and unjust attacks levelled against the Board of Guardians in the *Lancet*, *Medical Gazette*, and British Medical Journal." Scurrilous and unjust we would not intentionally be: offensive we must be if occasion demands it. And therefore, however offensive our decision may be to Mr. Chesterman, we must say that he appears to have utterly disregarded all intraprofessional good feeling in this matter; for our opinion must be much changed before we can believe that his medical brethren in Banbury would be so forgetful or so dishonest as to draw up and collectively sign a statement falsely impugning their colleague's conduct. Or, if the slightest doubt remained on this point, we would give Mr. Chesterman the full benefit of it, and at the same time leave his conduct in supporting a candidate for Mr. Grimbly's office to the treatment which it would richly deserve, not only from the medical practitioners of Banbury, but from all honourable members of our profession.

It is not without some regret that we have felt called on to animadvert on the conduct of Mr. Chesterman, especially as he is a member of the British Medical Association; but one of our duties is the maintenance of professional honour, and we must perform it.

In concluding our remarks, we are enabled to make a statement which will be gratifying to all of our associates who take an interest in this case, or in other Poor-law matters—viz., that Mr. Grimbly has been reelected, by a large majority, to the office which he had resigned. The dignified and honourable conduct of that gentleman and his friends has thus received a well merited meed of success; and the promoters of Poor-Law Medical Reform will gain courage to persevere even under difficulty and discouragements, wherever the events which have formed the subject of our comments on the present occasion shall become known.

THE WEEK.

A report on the organisation of the Russian Medical Department, drawn up by Dr. Mouat and Mr. Wyatt, was lately presented to the House of Commons. The document contains much interesting matter, arranged under the following heads: 1. General organisation of the medical department; 2. Surgery of the war; 3. Medical history and the sanitary condition of the hospitals and camps; 4. The prevailing diseases of the Russian army, both of the native population and of the Tartars. The medical department is supplied partly from students educated by the state, and partly from those who are educated at their own expense. Service for a certain period is compulsory on those belonging to the former class; but every medical officer may retire on half pay after twenty-five years service, and on full pay after thirty years service. Each regiment of

4,000 men has a surgeon-major and three surgeons of battalions. The annual pay varies from 250 silver roubles, or £32, with service and forage, for a surgeon of battalion or *ordinateur de l'hôpital*, to 725 silver roubles, or £92 : 16, with 300 roubles, or £38 : 8, as table-money, when the highest rank, that of major-general or general, has been attained. There is a provision for progressive increase of pay after every five years successive service, and for increase of army rank for any special merit displayed: and as there is no inducement for prolonged service, the old officers give place to younger and more vigorous successors. Every regiment is provided with a dispenser, having the rank of a non-commissioned officer; and every hospital has an apothecary and dressers. The hospital dietary is approved of; among its constituent parts are mentioned good white bread (although the sick often preferred the black), thick soup, and tea. All things requisite for hospital and regimental use are supplied by an officer of the Russian intendance, on the requisition of the colonel: and the means of removing the sick and wounded are amply provided by the state. The female nurses, styled "Sisters of Mercy," are generally widows of officers. In remarking on the surgery of the Russian army, the report states that pyæmia, erysipelas, and phlegmonous inflammation seem to have been the most common causes of mortality after capital operations. The large amount of sickness and mortality among the Russians is ascribed in part to intermittent and bilious remittent fevers, with a marked tendency to a low typhoid state, and diarrhœa, which occasionally degenerated into dysentery. Although the Russian soldiers are equal in height to the English, they are inferior in capacity of chest, and in muscular conformation: they appear unhealthy, and either prematurely old, or very young. Such is a brief outline of this interesting report: we shall return to the subject at greater length on a future occasion.

If there be any one who has flattered himself with the idea that the belief in witchcraft is altogether a thing of the past in this enlightened age and favoured country, his satisfaction will have been diminished on reading, in the *Times* of last Tuesday, the report of the trial of James Tunnicliff, for obtaining money from Thomas Charlesworth, under the pretence of relieving him from the spells of witchcraft. A brief account of the circumstances attending the case will be found in our news columns. The lamentable superstition and ignorance exhibited by a man who, from his station in life, might be expected to know somewhat better, even if he were not very clear headed, is a matter pregnant with reflection to all promoters of general education. And to the medical reformer the case is of interest. A man of Charlesworth's mental calibre would place faith in the representations of any charlatan whatever, and the more so in proportion to the extravagance of the pretensions. The simple minded farmer is but one of a large class who require legal protection against being imposed on in regard to their health and life, as well as to their property. Education must and will do its work in removing time-honoured superstitions and ignorance; but in the meantime—and the case to which we have alluded shows it distinctly, though perhaps indirectly, as far as regards medicine—stringent protective measures are demanded to protect simplicity from becoming the victim of imposition.

Association Intelligence.

CHANGE OF ADDRESS OF THE EDITOR.

All letters or communications for the Journal should in future be addressed to Dr. Wynter, Coleherne Court, Old Brompton, S.W.

Letters regarding the business department of the Journal, and corrected proofs, should be sent to 37, Great Queen Street, Lincoln's Inn Fields, W.C.

NOTICE TO MEMBERS IN ARREAR.

Notice is hereby given, that after the 18th day of April next, the British Medical Journal will be withheld, in accordance with the Laws, from all members whose subscriptions for last year shall remain unpaid.

Philip H. Williams, *General Secretary.*

Worcester, March 1857.

MEETING OF COMMITTEE OF COUNCIL.

Held in Birmingham on March 17th.

Present:—Sir C. Hastings (in the Chair); Dr. Drury; Mr. Hatton; Mr. Husband; Mr. Pemberton; Mr. Terry; Mr. Wickenden; Dr. Williams.

The Report of the Finances of the Association (from January 1st to December 31st, 1856) was read by the Treasurer, Sir C. Hastings.

It was resolved:

1. That the Financial Report, read by Sir C. Hastings, be adopted, and printed in the Journal. [The Finance Report will be published in the Journal of next week.]
2. That in the first week of each month the names of new members admitted during the preceding month be published in the Journal.
3. That in the opinion of this meeting it is neither expedient in the present state of the finances of the Association, nor necessary from the character of the labour involved in the office, to increase the present amount of remuneration given to the Secretary.
4. That Sir C. Hastings and Dr. Williams be requested to ascertain what date will be most convenient for holding the next Anniversary Meeting (in Nottingham).

Charles Hastings,
Philip H. Williams.

Worcester, March 1857.

ADMISSION OF MEMBERS, AND PAYMENT OF SUBSCRIPTIONS.

The General Secretary of the British Medical Association begs to call the attention of members to the Laws regarding the Admission of Members, and the Payment of their Subscriptions.

"*Admission of Members.* Any qualified medical practitioner, not disqualified by any bye-law, who shall be recommended as eligible by any *three* members, shall be admitted a member at any time by the Committee of Council, or by the Council of any Branch."

"*Subscriptions.* The subscription to the Association shall be One Guinea annually; and each member, on paying his subscription, shall be entitled to receive the publications of the Association of the current year. The subscription shall date from the 1st January in each year, and shall be considered as due unless notice of withdrawal be given in writing to the Secretary on or before the 25th of December previous."

Either of the following modes of payment may be adopted:—

1. Payment by Post-Office Order to the Treasurer (Sir C. Hastings, M.D., Worcester), or to the undersigned.
2. Payment to the Secretary of the Branch to which the member belongs.
3. Members residing in the Metropolis and vicinity can make their payments through the publisher of the British Medical Journal, Mr. Thomas John Honeyman, 37, Great Queen Street, Lincoln's Inn Fields, W. C.

Philip H. Williams, *General Secretary.*

Worcester, March 1856.

Reports of Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, February 24th, 1857.

Cæsar Hawkins, Esq., F.R.C.S., President, in the Chair.

ON DISARTICULATION OF THE SCAPULA FROM THE SHOULDER-JOINT.

BY JAMES SYME, ESQ., F.R.S.E.

Janet S., nearly seventy years of age, was admitted into the Royal Infirmary of Edinburgh, on the 18th of September, 1856, on account of a large tumour involving the left scapula. In size and form it resembled a cocoa-nut. In some parts it was as hard as bone; in others, elastic but firm. It presented a distinct bruit, and communicated a strong pulsatory movement. The tumour was first noticed about six months before, when it was of the size of an orange. Considering, on the one hand, that the extension of the growth into the axilla rendered relief by a partial removal of the bone impossible—the unsatisfactory result of that operation in Mr. Liston's recorded case—the fearful mutilation which it would involve—and the small hope of a successful issue to so formidable a procedure at her advanced age; whilst, on the other hand, the chief obstacles to recovery seemed likely to be serious hæmorrhage (which it was thought might be prevented), or excessive drain upon the patient's strength in the subsequent suppuration—Mr. Syme determined to remove the entire bone. An incision was made from the acromion process transversely to the posterior edge of the bone, and another from the centre of the first directly downwards below the lower margin of the tumour. The flaps thus formed were then reflected. The scapular attachment of the deltoid, and the connexions of the acromial end of the clavicle, were next divided. With a view to prevent the most serious source of hæmorrhage, the subscapular artery was next cut across, and secured. The joint and circumference of the glenoid cavity were next divided; the finger being hooked under the coracoid process, greatly facilitated the division of its attachments, and enabled the operator to pull back the bone, and separate its remaining attachments with rapid strokes of the knife. The limb was supported and retained *in situ* by a bandage. The tumour, on examination, was found to consist of a nearly uniform expansion of the bone into a bag, partly membranous, partly osseous, containing a cerebriform growth, and extended to the margin of the glenoid cavity and spine of the bone. All seemed to promise well after the operation; the wound healed rapidly. At the end of a fortnight, the amount of discharge was scarcely sufficient to stain the bandage. The shoulder assumed a very natural appearance, and it seemed that by the support afforded by the clavicular portion of the deltoid, together with the action of the pectoralis and latissimus dorsi, the limb would be able to execute a fair degree of motion—indeed, the woman was with difficulty prevented using the limb too freely; but the patient's strength did not improve in a corresponding degree, and towards the end of November she suddenly sank, and died on the first day of December. The author concluded with the expression of a hope that this case would tend to encourage greater freedom in operating for diseases of the shoulder-joint as well as scapula, proving, as it did, that the scapula may be removed without serious loss of blood; that the resulting wound does not necessarily occasion excessive discharge, and that the arm becomes afterwards a serviceable limb.

Mr. Hale Thompson regarded the operation which had been detailed in the paper as most undesirable to be performed. Looking at the age of the patient, and other circumstances, a favourable result could not have been expected. He did not believe that the woman could use the arm on the side from which the scapula had been removed any better than she could the paralysed arm. He thought the operation unjustifiable.

The President said it was interesting to know that a patient might recover the use of the arm, to a certain extent, after such an operation. There were few cases, however, in which the operation could be practised, since there were few in which the tumours were circumscribed by bony coverings. The greater number of cases would be those of medullary disease; he had one such under his care at the present time—that of an enormous medullary tumour growing in every direction from the outside bone.

Mr. Cubling thought the operation was a skilful and able attempt on the part of the surgeon to effect a good object. The patient was, no doubt, in an unfavourable position for the success of the operation; but the effort of the surgeon was for the prolongation of life. He had seen Mr. Luke remove the greater part of the scapula, leaving the glenoid cavity. He thought the operation of Mr. Syme was to be justified on every sound surgical principle.

Mr. Syme observed, that it appeared to him remarkable that after the removal of the scapula the arm should still be useful; and on this ground, that the case would be interesting to the society. It was still more surprising, that the removal of the clavicle should not produce any alteration in the position of the shoulder, or interfere with the motion of the arm; yet this was the fact in a case in which he had operated. There was, in truth, no difference between one arm and the other. Many things which appeared *à priori* impossible, were not really so. Other cases of tumour of the scapula were also fit for the operation he had performed. He mentioned one in particular, which had come under the care of the late Mr. Liston, who wished to amputate the scapula, but could not get any other surgeon to countenance the proceeding.

ON A NEW METHOD OF OPERATING FOR IMPERMEABLE URETHRA.

BY JAMES SYME, ESQ., F.R.S.E.

In a former communication upon the remedy of stricture by external incision, the author endeavoured to show that impermeability was not consistent with the nature of stricture, and that whenever the urine could pass through the urethra an instrument might be made to do so; not perhaps at once and with ease, but always through time and proper management. Though thus certainly permeable while merely contracted, the canal was undoubtedly liable to complete obstruction in consequence of wounds, and also of sloughing, when it had been found to constitute a very troublesome subject of treatment by the operation hitherto employed—viz., cutting upon the point of a catheter passed down to the seat of obstruction, so as to clear a way for its introduction into the bladder—a process rendered difficult by the thickness and condensation of the textures concerned, and also dangerous as well as uncertain by the risk of not cutting exactly in the proper course of the urethra. Two cases of this kind—one from a provincial town in Scotland, and another from St. John's, New Brunswick, in both of which not a drop of urine passed through the urethra for many months, the urethra being completely obstructed to the introduction of instruments—having lately come under the author's care at the same time, led him to reconsider the subject, and devise the following plan instead of the one usually employed, which for the reasons just mentioned he was unwilling to adopt. An instrument like the common lithotomy staff, with a groove on its concave instead of the convex side, being introduced through the fistulous opening of the perinæum, and confided to an assistant, the guide director employed for the division of strictures by external incision might be passed down to the seat of obstruction, and while the staff was supported by pressure upon the perinæum to thrust through the opposing substance in the course which it ought to take if the canal were free, enter the groove, and so pass into the bladder, when the state of matters would be similar to that of a stricture requiring division after having the director passed through it, so that the operation might be completed in the same way as upon such an occasion. This procedure was executed in both of the cases, without any difficulty in one, and without more in the other than might have been expected from the extreme degree of injury which the patient had sustained by falling twenty feet, fracturing the pubis, having the bladder punctured, etc. The first patient was dismissed from the hospital perfectly well at the end of seven weeks after the operation; the second, passing urine in a full stream, but in general only by drops through the perinæum, appears also to have the prospect of complete recovery at no distant date. While quite aware that the formation of a new urethra is much less promising in its result than the enlargement of an old one, the author expressed his hope that the method which he had proposed would facilitate the procedure, and lessen the risk of its bad consequences.

Mr. Coulson thought there were many cases in which the plan proposed by Mr. Syme would not be applicable. There might be a great portion of the urethra obliterated anterior to the perineal opening, in which case the mode of propelling the small director would not apply; or the operator might not always be able to get the staff from the perineal opening into the bladder, on account of the tortuous course it would have to take.

Mr. Benjamin Travers referred to the fracture of the pubis, mentioned as occurring in the second case, and said it was a

very serious and often fatal complication. It co-existed with extensive laceration in the neck of the bladder. He suggested that the paralysis of the rectum was explained by the circumstance of the fracture. The difficulty connected with Mr. Syme's operation would, he conceived, in many cases, be to hit the posterior opening, and push any kind of instrument thence into the bladder.

Mr. Hutchinson had hoped, from the title of the paper, and the reputation of the author, to hear a description of some expeditious plan of getting through those strictures ordinarily termed impassable, and without any perineal fistula. When a perineal fistula existed, the operator had but to pass a catheter by the fistula into the bladder, retain it there as a guide in the subsequent part of the operation, and then to cut on the point of a full-sized instrument passed by the penis as far as the obliterated tract. The real difficulty occurred in cases in which no direct fistula from the perinæum existed, and the posterior tract of urethra could not be found. Then again, in cases of obliteration, one never knew the length of the obliterated tract, and often the induration was of extreme density. He thought there was some objection to the use of force with so small an instrument as the grooved director recommended by Mr. Syme, from its liability to bend, and to pass out of the proper direction; as he had once found it do in the course of his own experience.

The President asked Mr. Syme if he did not think that cases of lacerated urethra, with sloughing, did not do better, after operation, than where incision was made in cases of stricture.

Mr. S. Smith said Mr. Syme ought not to be made answerable for the London instruments bearing his name. The instrument which he himself had exhibited, ought never to be bent by any surgeon.

Mr. Syme explained more particularly the operation which he had proposed; and, in reply to Mr. Coulson's objection, that it would be rendered difficult by the tortuous direction of the fistula, stated that the passage was always perfectly direct, and also wide, unless perhaps just at the orifice, since the cause of true obliteration, for which alone the operation was intended, resulted from either sloughing or wounds, and not from the gradual extension of purulent matter, as in the ordinary cases of perineal fistula, which always admitted of remedy, either by dilating or dividing the stricture that gives rise to them. As to the opinion expressed by Mr. Hutchinson, that the operation in question would not be applicable to strictures so tight and tough as to bend metallic instruments employed for their dilatation, Mr. Syme again explained that the procedure which he had proposed was intended for the remedy, not of *stricture*, but of *obliteration*, and that he believed the former condition would never be found to require the old expedient of cutting upon the point of a catheter, if the introduction of bougies were perseveringly attempted with skill and care, and especially with such gentleness as must entirely preclude the risk of bending a metallic instrument.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, February 17th, 1857.

Thomas Watson, M.D., President, in the Chair.

FIBROUS TUMOUR OF THE OVARY. BY T. W. NUNN, ESQ.: WITH REPORT BY J. S. BRISTOWE, M.D., AND J. HUTCHINSON, ESQ.

The specimen was exhibited by Mr. Nunn at the meeting on February 3rd.

A tumour, the size of a child's head, had been removed from the abdomen of an old woman, of whose disease there was no history. Externally it showed a layer of yellow-white calcified material, nearly an inch thick, and in parts bony; within, the structure was plainly fibrous, and had no cretaceous or osseous deposits. The tumour was attached to the uterus by a band about the length and thickness of a broad ligament; it possessed also bands of adhesion to the omentum and adjacent viscera. Attached to the uterus by a short pedicle, and growing from its opposite side, was a nodulated white fibrous tumour, of the ordinary kind, about the nature of which there was no doubt. Only one ovary was present. Mr. Nunn believed the larger tumour to represent the missing ovary, and to determine this point it had been referred to Dr. Bristowe and Mr. Hutchinson. Dr. Bristowe reported that after careful examination they had come to the opinion that it was not an ovarian but a pedunculated fibrous tumour of the uterus. This conclusion they based on the following facts: 1st. That the ovary present evidently belonged to the same side as the tumour, although it was not connected with it. 2nd. That the structure of the tumour showed under the microscope the unstriped muscular fibre of the uterus. 3rd. That the body of the uterus was almost wholly wanting, only the cervix being present, whilst its fundus was puckered and had evidently undergone great loss of substance. 4th. That the calcification of a peripheral layer, although acknowledged to be very rare in uterine tumours, did occur sometimes, as was proved by existing specimens. They thought it probable that the missing ovary had been accidentally cut away in the removal.

Mr. Hutchinson remarked on the general subject of pedunculated uterine tumours, that he thought that the peripheral calcification might possibly be explained as resulting from the disintegration of a layer of uterine tissue by which the tumour had been surrounded. At first, from this condition, he had been inclined to doubt the tumour being uterine; but on search, he had found in the Museum of St. Bartholomew's a parallel specimen. In the latter case, the tumour was also partially pedunculated. He had searched through the museums of the College of Surgeons, of St. Bartholomew's, and of Guy's Hospitals, but had been able to find but one example of this peripheral calcification, whilst the occurrence of scattered osseous and calcareous deposits was illustrated by a great number of specimens.

Mr. Nunn objected to the report. He still believed the tumour ovarian, and hoped a second committee might be appointed.

Dr. Bristowe and Mr. Hutchinson expressed their desire that the subject should be further investigated if Mr. Nunn wished, but stated that they did not feel any reasonable doubt. After some conversation, the President nominated Dr. West and Dr. Bristowe to make a second report.

ENCEPHALOID CANCER OF THE EYEBALL. BY J. W. HULKE, ESQ.

This patient was a child of about four years old. The development of the growth had been watched for several months. The history of the case presented nothing peculiar; there was the usual bright reflex from the bottom of the eye, and numerous blood-vessels were seen ramifying upon it. The eye had become inflamed, and had been removed by Mr. Bowman. The situation of the vitreous humour was filled with a soft, brain-like growth, which was abundantly vascular, and presented the minute structure of encephaloid cancer. The choroid and ciliary muscles were much thickened by inflammatory exudation.

MELANOSIS OF EYEBALL. BY J. W. HULKE, ESQ.

The eye had been disorganised by violent inflammation twenty years before. Two months before his admission into King's College Hospital the conjunctiva became red, and two small tubercles appeared on the front of the globe: these burst, and bloody serum escaped. Soon afterwards a tumour shot out from the front of the eye, rapidly attained considerable size, and projected between the lids. Its colour was dark, and its surface, from which there was a constant sanious oozing, was irregular. The projecting mass moved readily in association with the movements of the other eye. After removal by Mr. Bowman, the growth was found to consist of two parts, a dark blackish, and a light grey portion. Excepting that the cells of the dark part contained pigment, the minute structures of both portions were similar. The shrunken globe was filled with the cancerous growth which had escaped in front, forming the external tumours, and the sclerotic had given way behind the insertion of the tendon of the inner rectus muscle, and also near the entrance of the optic nerve; and in these situations there were small nodules of the tumour outside the globe, continuous with the mass filling its interior. It is interesting to notice at how late a period in the history of the case melanosis has been developed. It appears also that the free mobility of the tumour was not a sure sign of the sclerotic coat being entire posteriorly.

DISEASE OF THE HEART WITHOUT VALVULAR AFFECTION. BY S. WILKS, M.D.

This specimen was from a woman who had been under Dr. Barlow's care in Guy's Hospital, for heart disease. She died with all the usual symptoms of cardiac derangement, as dropsy, etc. She was thirty years of age, and had not been well since an attack of acute rheumatism eighteen years before. The heart was remarkable, as exemplifying the effects of general carditis, independent of disease of the valves. The serous membrane, both without and within the heart, was much thickened, indicative of the inflammation which had once

existed, and at the same time the muscular structure itself was pervaded throughout by a number of white streaks, producing what is known as the fibrous degeneration. The endocarditis had been most intense towards the apex rather than the base of the ventricle, and thus probably the absence of valvular affection, and the existence of the present form of malady. The whole organ weighed twenty-four ounces. The left ventricle was much dilated.

SPECIMENS OF NEUROMA. BY S. W. SIBLEY, ESQ.

The first specimen was removed by Mr. Nunn from the arm of a female, aged 20, where it had been growing for twelve months, but had given rise to very little pain. The tumour grew from the musculo-spiral nerve, and a portion of this structure was removed along with the new growth. When first excised the tumour was about the size of a large walnut, and was enveloped in a dense fibrous capsule continuous with the sheath of the nerve. On removing the capsule the neuroma was found to involve only a portion of the whole nerve. Many nerve fibres were traced to a considerable distance within the tumour, others were observed coming from it. Under the microscope the structure was made up of connective tissue, principally of the white wavy fibres. A very abundant supply of capillary vessels was also noticed, arranged in a network throughout the tumour.

The second specimen had grown in connection with the fifth and sixth cervical nerves. It was removed some time since by Mr. Barber, of Stamford, from the neck of a female, aged 40. The tumour had caused extreme pain, and great cutaneous sensibility over the right side of the neck, which chloroform and other topical remedies failed to relieve. After excision the tumour was found to involve a considerable portion of the fifth and sixth cervical nerves; it was inclosed in a dense fibrous capsule. On section the interior of the growth was observed to be softened and broken down. The microscopical structure was similar to that of the first specimen.

VILLOUS GROWTH ON THE DURA-MATER. BY S. W. SIBLEY, ESQ.

This specimen was a growth the size of a small nut, which sprung from the dura-mater near the face. There was a depression on the surface of the brain opposite the tumour, but no disease of the substance of the brain. The patient from whom it was removed had died in the Middlesex Hospital, under the care of Mr. Shaw, with cancer of the uterus. There were no symptoms connected with the growth observed during life, nor was there any secondary cancerous growth noticed after death. In structure the growth was composed of a number of little villi. In addition to the epithelial cells usually found in these growths, there were several "laminated" and "brood" cells.

METASTASIS OF SUPPURATION. BY T. BALMAN, M.D.

The specimens were exhibited, in the absence of Dr. Balman, by Dr. Quain.

The subject of these specimens was a stout boy, three years old, who came under Dr. Balman's notice for an abscess situated in the neck, about one inch and a half from the angle of the left jaw, a little anterior to the sterno-mastoid muscle. Opened, it gave exit to a considerable quantity of healthy pus. A counter-opening was required on the third day. On the tenth day the child was well. On the day following he had some shortness of breathing, which continued for three or four days, the attacks being described by the friends as resembling asthma. He had also some difficulty in swallowing liquids, but not solids. In fact, he eat bread and butter for his breakfast a few hours before his death. This occurred so suddenly, that Dr. Balman, who had not seen the child during three days, on coming immediately that he was sent for, found him dead. A *post mortem* examination showed the sac of the abscess still existing, the lining being of a dirty-brownish aspect, but containing no matter, and having no communication with any organ. The œsophagus and the larynx were found perfectly healthy; when the trachea was laid open, a thick coating of puriform matter was seen extending downwards as far as the division of the bronchi, where there was rather a greater accumulation. The left bronchus, as far as it could be followed through its ramifications, was filled with the same creamy-looking matter. The right bronchus presented no such appearances, and the lung tissue appeared alike healthy on both sides, except the oozing of matter from the small bronchi of the left sides. There were no coagula in either the pulmonary arteries or veins. The heart was healthy, save that there were but two (still efficient) aortic valves. The interest of the case centred in the connection which manifestly existed between the healing of the abscess in the neck and the presence of a quantity of purulent matter in the air-tubes of the lungs. This matter, which appeared to be independent of true inflammatory action (and which, in reply to a question, was said not at all to resemble coagulable lymph), was manifestly the cause of the child's death, by producing suffocative spasm. Dr. Quain added, that Dr. Balman's details of the case were so full and satisfactory, that no doubt concerning them could exist.

EPIDEMIOLOGICAL SOCIETY.

Monday, March 2nd, 1857.

B. G. Babington, M.D, F.R.S., President, in the Chair.

PUERPERAL FEVER. BY EDWARD W. MURPHY, M.D.

Dr. Murphy alluded to a former paper on this subject, in which he had objected to the propriety of considering this disease as an inflammation of one or other of the tissues. Neither in the mode of attack, nor in the symptoms, *post mortem* appearances, or treatment, did puerperal fever agree accurately with peritonitis. A closer resemblance to phlebitis was admitted, because both it and puerperal fever were blood-diseases; but he denied that they were identical. He regarded the disease as the result of a poison, obeying strictly all the laws of morbid poisons. *Its action was definite and specific.* The seat of that action was the serous surfaces, especially the peritoneum and uterine veins, chiefly because of the rapidity of the absorption carried on by them. He denied that the action itself should be considered a *specific* inflammation, although he admitted that, in certain cases, inflammation might be excited. The term inflammation was used too extensively, to embrace actions perfectly opposed to each other. The design of inflammatory action is to preserve or repair organised structure, yet the term is given to actions that destroy it. Thus, cancerous inflammation, tubercular inflammation, are expressions sometimes used to mean that cancer and tubercle are only forms of inflammation. So also, in the infantile lung, *post mortem* appearances, caused by collapse of the lung, were described as lobar, lobular, vesicular pneumonia. The tendency of a poison is to destroy organisation; it is incorrect, therefore, to consider its action a *specific* form of inflammation, which, whenever it takes place, is only for the purpose of limiting the action of the poison; and, in this sense, just as the deposition of tubercle on the peritoneum is accompanied by peritonitis, so puerperal poison may excite peritonitis. The more powerful the poison, however, the less peritonitis, and the weaker its influence, the more distinctly are the evidences of inflammation observed.

The action of the puerperal poison is on the blood. The quantity of fibrine in the blood is increased; the quality deteriorated; a profuse exudation of morbid fibrine takes place, having none of the properties of healthy fibrine; it is not organisable; dissolves into a creamy substance, which melts into a fluid like pus, and, mixing with serum, forms the abundant lactescent fluid of authors. Exudations are not found in the veins, because they are not adhesive; but dissolved fibrine, like pus, is found abundantly. The puerperal poison seems a contrast to the typhus poison, which destroys fibrine; yet the typhus poison absorbed by a parturient patient will cause puerperal, not typhus fever. It is the same with erysipelas.

The action of the poison is modified by the dose, as well as by the temperament and constitution of the patient. Puerperal fever does not attack all indifferently, but selects its victims. The most important feature of this law is the manner in which the characters of the disease are modified by the quantity of the poison absorbed. When it is in excess, the patient may die without any other symptoms than a fluttering pulse and cold livid surface. On the other hand, the dose may be so small that true inflammation is set up to arrest it; and thus peritonitis, phlebitis, or arthritis, takes place. Hence have arisen the contradictions among authors; those who meet the latter class of cases calling the disease peritonitis, while those who witness the former stand aghast at symptoms which no theory of inflammation can explain.

The coexistence of hooping-cough, of measles, and of syphilis, with erysipelas, proves that two poisons may each set up its specific actions in the same person at the same time. Erysipelas and puerperal fever have occurred in the same patient; but the author generally found erysipelas to precede or follow puerperal fever, rather than accompany it. Erysipelas excited puerperal fever; but when the latter was at its height, the former disappeared. The author objected to the opinion that erysipelas and puerperal fever were identical, and did not con-

sider those cases described by Good, in which the peritoneum was pale and colourless, as puerperal fever at all. They might be instances of erysipelas, if this poison ever attack serous membranes.

Dr. Murphy considered the poison as a contagion, like the cadaveric poison, which seems similar to it. He briefly enumerated the symptoms of the disease, to explain the principle which should guide in the treatment. According to its strength, the constitution makes an effort to remove the poison, whether by vomiting or by purging, by the skin or by the kidneys. The observation of these efforts led Donat to use emetics, Boèz Kermes mineral, Denman tartar emetic, and Armstrong salts and senna. If the effort fail, the poisoned blood accumulates at the centres of the circulation, which are relieved by a prompt and bold depletion. For such a purpose, thirty, forty, even fifty ounces of blood, have been taken, with decided benefit; but depletion should instantly follow the rigor, because, if time is lost, the very same treatment may only hasten dissolution. Camphor and turpentine have been recommended in the treatment of this fever. These remedies are not only stimulant, but anæsthetic; and not only are useful in supporting the constitution against the attack, but, by diminishing the pain, they lessen nervous exhaustion. Reasoning on these facts, Dr. Murphy tried chloric ether with great advantage; and he recommended it strongly to the consideration of the profession. General rules cannot be laid down for treatment. If the dose of the poison be a maximum, nothing will save the patient; if in such quantity that the constitution can make some effort to get rid of it, much of our success will depend upon a close observation of the manner in which the effort is made. Prompt depletion has saved many a patient. The judicious use of emetics, purgatives, diaphoretics, and even diuretics, has arrested the attack by aiding a natural effort. If the dose of the poison be a minimum, then peritonitis or phlebitis become prominent, and must be treated as such. Thus, what we called the inflammatory and the atexic forms of this disease merely signify the degrees in the dose of this poison.

The author alluded to the importance of prophylactic agents, to *ventilation*, and the improvements lately introduced; to *chlorine*, as a means of destroying the poison; and to anæsthetic agents, as a means of blunting the sensibilities of the nervous system, and diminishing the activity of absorption. In this sense, he considered chloroform extremely valuable; and, far from fearing its influence in causing puerperal fever, he looked upon it as a preventative.

A discussion followed, in which Dr. Tripe, Dr. Babington, Dr. Chowne, Dr. Milroy, and Mr. Hunt, took part.

Parliamentary Intelligence.

HOUSE OF LORDS.—Friday, March 20th.

SALE OF POISONS.

The Marquis of Westmeath wished to be informed whether it was the intention of the Government to introduce a Bill next Session for regulating the Sale of Poisons? The necessity for such a measure had been proved by a case which unfortunately came recently within his own knowledge. The child of one of his relations was poisoned last summer by medicine that was sent from a chemist's shop at Weymouth. The medicine was sold by a boy who was too young to be an apprentice; and the only other person in the shop at the time of the sale was a boy of fourteen years of age. The chemist had left his shop in charge of those two boys. Unfortunately, the mother herself administered the dreadful dose to her own child. A long investigation took place before a coroner's jury; and a verdict of manslaughter was returned against the two boys. Bills were sent before the grand jury against them, but those bills were ignored. He did not mean to throw any blame on the grand jury, or on the law officers of the Crown; but he thought there could be no doubt that the safety of the public positively required that some legislative measure should be passed on the subject. Since the bills were thrown out, the chemist in question had inserted an advertisement in the newspapers, to the effect that his establishment was excellently managed, and would continue to give every satisfaction to the public. He (the Marquis of Westmeath) was sure that his noble and learned friend on the woolsack would admit that an end ought to be put to the administration of medicine by incompetent and irresponsible persons.

The Lord Chancellor said, the subject had been under the consideration of the Government, but it was almost as difficult a one as could be dealt with. It must be admitted that frequent instances of the nature alluded to had occurred; but he was afraid that an enumeration of poisonous articles sold in chemists' shops, with the view of preventing their being improperly bought or administered, would rather arrest the attention of such persons as desired to administer deadly poisons than tend to the decrease of unfortunate cases, such as that at Weymouth. Difficult, however, as the subject was, the Government were engaged in considering it; and if it were possible, they would introduce a Bill with regard to it; but he could not give any pledge. It had been suggested that chemists should be compelled to take out licenses for the sale of drugs; but that would be a poor remedy, for, whatever directions might be given as to their sale, chemists would occasionally leave their shops in the management of persons incapable of attending completely to its business. It was impossible for the Legislature to provide against all cases of carelessness in the sale of drugs.

The Marquis of Clanricarde suggested the desirableness of adopting in this country the practice which prevailed in Russia as to the sale of poisons, and which was this—a chemist or private individual who had poison in his possession was subject to a heavy fine if it was not enveloped in a paper of a certain colour.

Medical News.

BIRTHS, MARRIAGES, DEATHS, AND APPOINTMENTS.

In these lists, an asterisk is prefixed to the names of Members of the Association.

MARRIAGES.

Bond—Harrison. Bond, J. C. K., Esq., Civil Surgeon H.E.I.C.S., to Julia, only surviving daughter of John J. Harrison, Esq., of Hill Street, Brompton, at Moulmein, Burmah, on Decemberber 29th, 1856.

Halford—Millar. Halford, George Brittan, M.D., to Louisa, eldest daughter of Thomas Millar, Esq., of Birkenhead, on March 16th.

Havelock—Waller. Havelock, William Henry, Esq., to Augusta Caroline, eldest daughter of Dr. Waller, Garrison Surgeon, at Belgaum, Bombay Presidency, on January 8th.

DEATHS.

Halahan. On March 20th, at Woolwich, Elizabeth, youngest daughter of Dr. Halahan, Deputy Inspector-General of Hospitals, Royal Artillery.

Marsh, Edwin Booker, Esq., Surgeon, at Shaftesbury Villas, Kensington, of scarlet fever, aged 29, on March 20th.

Verity, Richard, M.D., at Dean Lodge, Bedfordshire, aged 69, on March 18th.

*Vise. On March 19th, at Holbeach, Lincolnshire, Sarah, wife of Edward Blithe Vise, Esq., Surgeon.

PASS LISTS.

Royal College of Surgeons. Members admitted at the meeting of the Court of Examiners on Friday, March 20th, 1857:—

Bateson, John Moses, Kirkby Lonsdale
Bell, John Henry, Bradford
Clapton, William, Stamford
Field, James, Bradford, Yorkshire
George, Charles Frederick, Kirton-in-Lindsey
Hayward, John Robert Samuel, Bristol
John, Walter, Penzance
Lys, Francis Daniell, Lymington
Oppenheim, Lewis, Army
Parr, James, Merion, co. Dublin
Stilwell, Henry, Uxbridge
Tibbits, Walter Hugh, Warwick
Woodhouse, Thomas James, Hackney Road

Wednesday, March 25th:—

Biddle, Henry Cooper, Edmonton

Caird, William Edward, Exeter
Evans, Abel, Llandyssil, Cardiganshire
James, John Davies, Bedwellty, Monmouthshire
Pughe, Hugh Richard, Bala, North Wales
Radley, William Hepworth, Doncaster
Russell, John, Durham
Smith, William Josiah, Gibson Square, Islington
Thomas, John, Cardigan
Wood, William, Liddington, Gloucestershire

Apothecaries' Hall. Members admitted on Thursday, March 19th, 1857:—
Bailey, John Henry Trollope, Coleshill
Bell, John Henry, Bradford
Ianson, William Andrew, Newcastle-on-Tyne
Laver, Henry, Paglesham, Essex
Morgan, George Blacker, Dublin
Murphy, William Ponsonby, Harrington
Roberts, David Watkin, 56, Manchester Street
Sibbald, John, Edinburgh
Thorburn, John, Manchester
Williams, Joseph, Westerleigh, near Bristol

HEALTH OF LONDON:—WEEK ENDING MARCH 21st, 1857.

[From the Registrar-General's Report.]

The total number of deaths registered in London, which in the previous week was 1156, was in the week that ended last Saturday 1195, of which 627 were deaths of males, and 568 those of females. In the ten years 1847-56, the average number of deaths in the weeks corresponding with last week was 1198, which almost entirely agrees with the number now returned; but as last week's deaths occurred in an increased population, the average must be raised, for the purpose of comparison, proportionally to the increase; in which case it will become 1318. Hence it appears that 123 persons survived last week, whose names would have been inscribed on the registers, if the average rate of mortality had prevailed.

As has been shown in recent returns, the diseases classed under the general term "zymotic", and the most important of which, with the exception of typhus, are fatal principally to children, exhibit in the aggregate a considerably reduced rate of mortality. The deaths referred to this class are in the present return 197; the corrected average of corresponding weeks is 254. The decrease appears under small-pox and typhus (or common fever); the former was fatal in four cases, the average being 15; the latter in 24 cases, the average being 51. Scarlatina, which carried off 27 children, and hooping-cough, which carried off 58, both make a close approximation to their averages. Twenty-six children died of measles, a number which very slightly exceeds the average. Seventeen persons died of diarrhœa. On reference to the Table of Epidemics, it will be seen that the deaths from the six diseases which have just been specified, occurred in proportions not very dissimilar throughout the different parts of the metropolis; but that the four sub-districts which compose East and West London, contributed only four out of the 157, and the City none, which is in part to be explained by the fact that this portion of the metropolis is in a less degree than others occupied by the younger members of families. The deaths from bronchitis rose last week to 164.

Eight nonagenarians died in the week; the oldest were a nurse, who died in Walworth at the age of 94 years; a gentleman, who died at the same age, in Upper Charlotte Street, Tottenham Court Road; and a widow, in the German Jews' Hospital at Mile End, who had reached the age of 99 years.

A man died in the sub-district of Finsbury St. Luke from privation; a horse-hair drawer from glanders; a person from intemperance; and four persons from carbuncle.

Last week the births of 939 boys and 916 girls, in all 1855 children, were registered in London. In the ten corresponding weeks of the years 1847-56, the average number was 1603.

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·719 in. The highest reading in the week was 29·90 in., on Saturday. The mean temperature of the week was 45·1°, which is 3·3° above the average of the same week in 43 years (as determined by Mr. Glaisher). The mean daily temperature was above the average till Saturday, when it was 6·2° below it. The air was warmest on Wednesday, on which day the highest temperature of the week occurred, and was 66·2°, and the mean temperature was 53·2°, which is 11·4° above the average. The lowest temperature of the week occurred on Tuesday and Saturday (the latter a bitterly cold day), and was 33·0°; and the entire range of temperature in the week was therefore 33·2°. The mean dew-point temperature was 39·7°, and the difference between this and the mean temperature of the air was 5·4°. The wind blew first from the south-west, afterwards from the south-east, then from the east, and on Saturday afternoon changed to north-east. Rain fell to the amount of 0·33 in., nearly all of which was melted hail that fell on Sunday (the 15th), on which day the horizontal movement of the air was 310 miles. On Thursday, the motion of the air was only 5 miles.

Proposed Testimonial to W. Sands Cox, Esq. A meeting of the Committee for promoting the testimonial to Mr. Sands Cox was held on Monday afternoon, at the Queen's College, Birmingham; the Mayor (John Ratcliff, Esq.) in the chair. The Mayor said that all then present were doubtless aware how Mr. Cox had spent five-and-thirty of the best years of his life in carrying on works which had become an ornament and an honour to the town. The noble building in which they were met, and also the Queen's Hospital, originated in lectures which Mr. Cox delivered in the back parlour of his father's house; and not only had he been the founder of these institutions, but he had been their chief supporter from the time of their establishment until now. Birmingham had in more ways than one reaped the benefit of Mr. Cox's exertions. He had established in it a School of Medicine, which had become famous and respected throughout the country; but, not content with this, he had made all the skill and talent thus brought together available for the service of his poorest townsmen. This he had not done without a large amount of self-sacrifice. The ability of Mr. Cox as a surgeon was not known in Birmingham alone, but throughout the length and breadth of the land; and there could be no doubt that, if he had confined himself to his professional duties, he would have amassed a large fortune long ere now. This fortune, therefore, he might be considered as having given away for the benefit of the town. He (the Mayor) thought the time had arrived when Birmingham and the district around should mark its sense of the recognition which such continuous work for the public welfare merited. He hoped that, ere they separated, they would make arrangements for thoroughly canvassing the town, as he felt sure the public would readily respond to such an appeal. Mr. Suckling, the Honorary Secretary, stated that subscriptions had already been received to the amount of nearly £900. Mr. Wilmot moved the first resolution, to the effect that those present would cordially cooperate for the carrying out of the object of the meeting. He felt much pleasure in being present to bear testimony to the talents and disinterestedness of Mr. Cox, who had devoted so much of his life to the establishment of two such noble institutions as the Queen's College and the Queen's Hospital. That his exertions had been crowned with success, was a subject of great congratulation, as hospitals especially were really among the noblest and best institutions of the country, and less liable to abuse than other public charitable trusts, for they were open to all classes of persons, irrespective of their religious or political opinions: and persons would not break their limbs or feign sickness for the sake of a hospital ticket; and he believed charitably disposed persons could not do better, if disposed, in settling their affairs, to do good, than leave some portion of their property to such institutions. Mr. S. Haines seconded the resolution in a brief speech, in which he referred to his long connexion with Mr. Cox, who, he said, had not only devoted his days, but also many of his nights, to the promotion of the success of his undertaking. He perfectly agreed with Mr. Wilmot in every word he had said respecting the benefits of such institutions. The motion was put, and carried unanimously. Resolutions in favour of a canvass of the midland districts, and other measures for carrying out the object of the Committee, were moved and seconded by Mr. Busby, Councillor Upfill, Mr. G. B. Knowles, Mr. Suckling, Mr. Boucher, and Mr. J. W. Walsh, and adopted. The meeting was then adjourned till the 20th of April.

Testimonial to David Johnson, Esq. On March 9th, the students of the General Hospital, Birmingham, presented Mr. David Johnson, late house-surgeon to that institution, with a silver cup and snuff-box, as a testimonial of their esteem and regard, and of their appreciation of the ability shown by him in the execution of the duties of his office, which he has held during the last four years.

St. Bartholomew's Hospital. The students of this hospital lately invited Mr. Holden, one of the teachers of the school attached to the hospital, to an elegant entertainment at Anderton's Hotel; Mr. Callender, F.R.C.S., in the chair. After the usual loyal toasts, the chairman, in a neat and appropriate speech, deservedly eulogistic of Mr. Holden, presented that gentleman, on the part of the students, with a handsome silver dinner service, and an address in the following terms:—"To Luther Holden, F.R.C.S. Sir,—We, the undersigned students of St. Bartholomew's Hospital, appreciating the able and willing assistance you have rendered us as a teacher, and the kindness and cheerfulness with which you have aided our studies as a friend, beg your acceptance of this memorial, together with the accompanying testimonial. We desire also to express our deep sense of the obligation we are under for the many valuable anatomical preparations and diagrams you have contributed to the museum and dissecting rooms, and the able literary productions by means of which you have so simplified our professional studies." The service of plate has engraved on it the crest of the recipient, and the simple inscription, "To Luther Holden, from the students of St. Bartholomew's Hospital, 1857." Among the teachers present were Drs. Baly and Kirkes, and Mr. Paget.

Witchcraft in the Nineteenth Century. A trial took place on March 20th, at the Spring Assizes in Stafford, before Mr. Justice Willes, which curiously illustrates the amount of superstition still prevalent in the nineteenth century. A young and apparently respectable farmer, named Thomas Charlesworth, resides on a small farm near Rugeley. Some sixteen months ago he married a young woman in his own station of life, but the marriage displeased his widowed mother, who had been living with him; and she left, cautioning him before her departure not to attempt to make cheese, as it would be sure to tumble to pieces. Cheese-making was prosecuted, but with little or no success, the milk refusing to turn, or, if a cheese perchance were made, it was certain to fall to pieces. The farmer and his wife and the dairymaid also were ill, without any ostensible cause. The farmer came to the conclusion that he was "bewitched"; and, by the advice of a neighbour, consulted a "wise man," named James Tunnicliff. This man proffered his services to remove the dire calamity, and next morning he made his appearance on the farm. Without seeing the cows he pronounced them bewitched, and the cheese-kettle he declared to have fallen under the same curse. He could remove the enchantment, but money would be necessary, and forthwith the simple farmer paid him about £7 for removing the spell. Things, however, did not mend at the farm; on the contrary, the wife was occasionally seized with sickness, the husband suffered from unaccountable aches and pains, especially after Tunnicliff had been on the farm, and at night there were mysterious noises, accompanied by the shaking of the house, bellowing of the cattle, howling of dogs, etc. Tunnicliff represented the state of the farmer and his wife, and the extraordinary noises, to have arisen from the "widow's curse," and the enchantment put upon them through her instrumentality by wizards. More money was required; and Charlesworth freely parted with his money to the amount of £22, but the farmer and his wife derived no benefit. Tunnicliff at length resided with the farmer and his wife several months, during which period he was engaged at intervals in making crosses on all the doors with witch hazel, and in burning blue and other lights. Things went on in this way from April, last year, until February last, when at length the suspicion arose that Tunnicliff was contributing to their illness by drugging them, and that the extraordinary noises about the premises were occasioned by him. Ultimately Tunnicliff was sent about his business, and in the end, having been brought before the magistrates on the charge of obtaining money under false pretences, he was committed for trial. He has been found guilty, and sentenced to twelve months imprisonment with hard labour. (*Times.*)

A Substitute for Silkworms. Happily, there would seem now to be little need of the *eria*, or the Chinese silkworm, or of the cocoon of commerce, for the production of silk will ere long, in all probability be derived, not from the worm, but the leaf on which it has hitherto existed. It is now not the breeding of the insect, but of the mulberry tree—that species which was its only food, and which from that circumstance gave the *savant* the cue that led to his making the intimated discovery. His name has not yet been announced, although we should imagine it was none other than Signor Lotteri, who, in the course of last year, fully ascertained that a silky substance could be procured from the bark of the mulberry tree, and that by maceration good silk, and paper also, could be easily prepared therefrom. The *savant* in question, ruminating, it is said, on the circumstance of the silkworm living on one description of food, came to the conclusion that "the silky substance must lie not in the animal, but the vegetable matter" which supported it. He therefore "analyzed the composition of the mulberry-leaf, and, by boiling it to a thick paste, produced every description of silk in immense quantities." Such a substance being obtained from that species of leaf, it is not at all unlikely that from the Chinese oak and the castor-oil plant a somewhat similar result might be obtained. Be that as it may, and the truth of the other being shortly corroborated, neither Moreton-bay need sigh for the introduction of the cotton-plant, nor the northern and southern States of America shed their blood for the suppression or in the defence of slavery, nor England much longer play the hypocrite by condemning that accursed "institution" with one breath, and with another admitting the expediency of, at all hazards, strenuously upholding it. This is the land—every land within the temperate zone is, more or less—favourable to the rearing of the vine, the mulberry, and the olive. Every one, therefore, the possessor or occupier of a small spot of ground therein, may rear the great substitute for cotton, and, in so doing, weaken more and more this lamentable and apparently indispensable adhesion to slavery. He may "put money in his purse"; and, clothing his family and himself in "silk attire"—such as Imperial Cæsar had not dared to wear—drawn from the branches that give him shade and refreshing sustenance by day, and by night afford him the sleep of contentment, he may well thank Heaven that he is permitted to reap the fruits, though he have shared not the labours, of the thoughtful and perhaps ill-recompensed analyser of the enigmatical phases of nature. He may cheerfully and confidingly believe thenceforth that in the varied productions that she surrounds him with lie hid the main causes of the world's progress, and the renewing sources of peace and goodwill to men. (*Sydney Empire.*)

Negro Hospital at Charleston. Drs. Cain and Chisolm have opened a hospital, at No. 4 Wilson Street, Charleston, for treatment of the diseases of an important class of our population. Negroes, labouring under any form of disease, medical and surgical, except those that are contagious, are received into its wards. The establishment of such an institution has long been a desideratum; the necessity for its existence being so obvious as to need no argument to enforce the fact. To residents of the country, especially those by whom the city is easily accessible, does it particularly commend itself. The building is warm, plastered; has commodious rooms, and is in every respect comfortable; due regard being had, at the same time, to proper ventilation. The charges for attendance are the same as in private practice. (*Charleston Medical Journal*, January 1857.)

Medical Protective Society of Cork. This Association held its half-yearly meeting on the 12th March, Dr. Harvey in the chair. Dr. Armstrong read a report recapitulating the objects of the body and its proceedings since its formation; reminding the members that it is an extension of the Cork Medical Committee which commenced operations ten years ago by agitating against the five-shilling measure of the Board of Health then in the ascendant. The report proceeds to record that it was by the exertions of this Committee fair remuneration and respectful treatment was secured for the medical officers during the outbreak of cholera in 1849; and that to it also is due the assertion of an important principle which led to the cancelling of an appointment made by the Master-General of the Ordnance of an unqualified person to fill a medical situation. The Committee also takes credit for successfully resisting the appointment of an apothecary to take charge of the Military Hospital at Queenstown and causing his removal, as well as for the reversal of the decree which enjoined the dismissal of a dispensary physician, with many other public acts equally beneficial to the profession which our limits do not permit us to enumerate this day, but which we propose to do more in detail in our next number. Dr. Corbett alluded to the somewhat mysterious affair of a personation which took place in a dispensary in this county, never properly exposed or punished, but which may, by the exertions of the Committee, be used for the purpose of exposing such doings which are perhaps more frequent than people think. (*Dublin Medical Press.*)